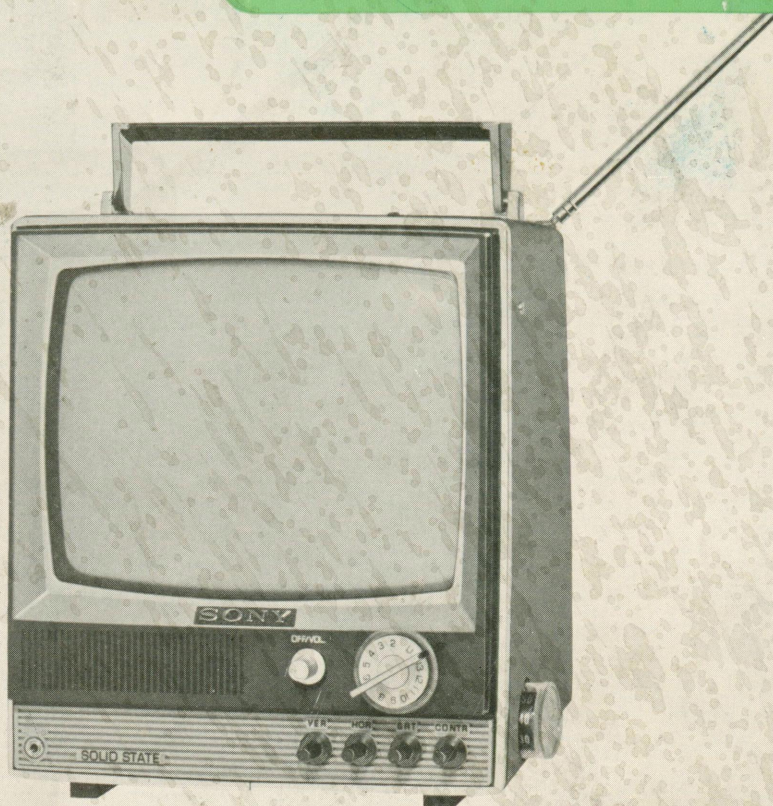


# TV 9-51UW



## Specifications

Picture Tube :	9", 90° Deflection, 20 mm Neck Dia., Aluminized Screen
Transistor :	24 ( 6 Silicon-including 5 Epitaxial, 18 Germanium )
Diode :	18 ( including 4 Selenium Rectifier )
Channel Coverage :	A2 ..... A13 VHF, and A14 ..... A83 UHF
Maximum Sensitivity :	5 $\mu$ V/m ( 10 Vp-p ) both in VHF and UHF
IF Circuit :	3 Stages with 4 Stagger Tuned Elements Video IF 45.75 Mc, Sound IF 41.25 Mc, Bandwidth 3.2 Mc
Resolution :	Vertical 350 lines, Horizontal 320 lines
Sound System :	4.5 Mc Intercarrier System
	Power Output Stage, SEPP-OTL system, 300 mW
	Speaker, 4" $\times$ 2-1/2" Oval Type, 40 $\Omega$ Voice Coil
Automatic Control :	Keyed AGC, Balanced Diode AFC
Power Requirement :	AC 117 V, 60 c/s, DC 12 V
Power Consumption :	AC 23 W, DC 15 W
Dimensions :	10" $\times$ 9" $\times$ 8-5/8"
	252 (H) $\times$ 228 (W) $\times$ 219 (D)mm
Weight :	10 lbs. ( 4.6 Kgs. )
Glare Proofing :	Smoked Filter, 70% Transparency

**SONY**<sup>®</sup>  
**SERVICING GUIDE**

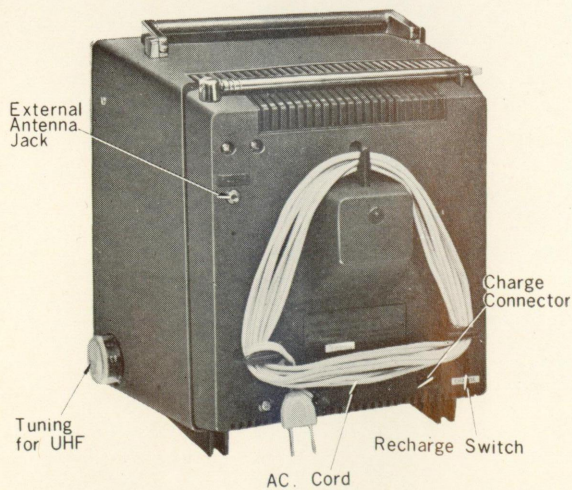
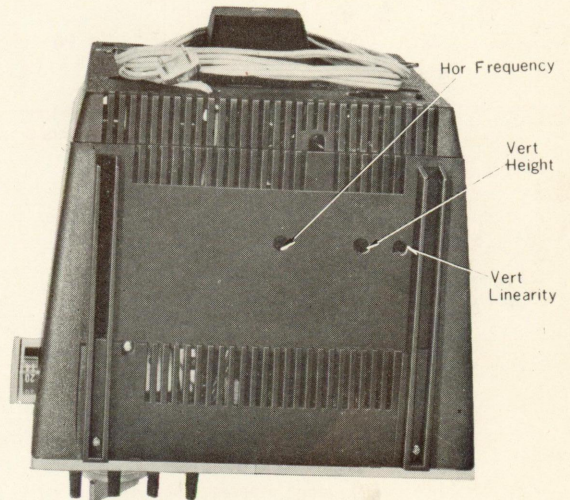
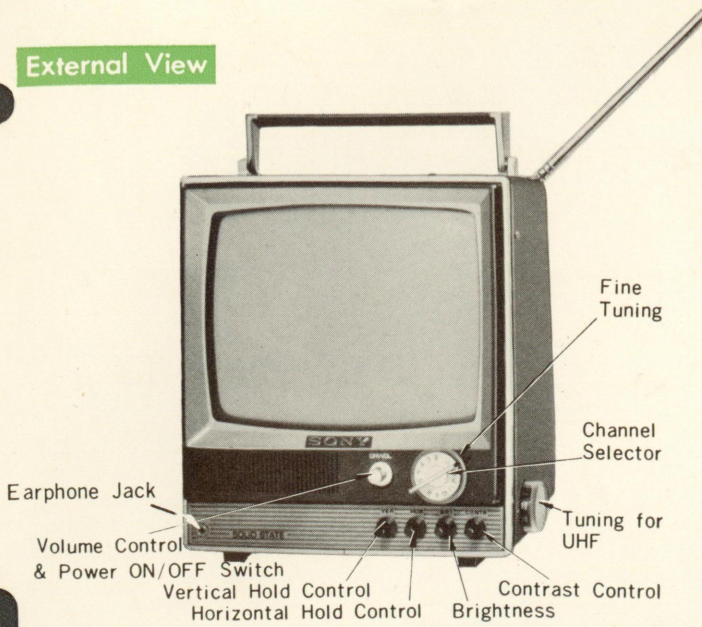


## TABLE OF CONTENTS

	Page
Specifications for the SONY Transistor TV 9-51UW .....	1
EXTERNAL VIEW .....	3
BLOCK DIAGRAM .....	4
MAJOR PARTS LOCATION .....	4
METHOD OF DISASSEMBLING THE SET .....	5
Removal of the Back Cabinet Cover .....	5
Removal of the Tuner .....	6
Removal of the Speaker .....	7
Removal of the Circuit Board .....	8
Removal of the Picture Tube .....	10
ADJUSTMENT PROCEDURE .....	11
VIF Response Curve Adjustments .....	11
SIF Adjustments .....	11
Deflection Circuit Adjustments .....	12
POWER SUPPLY SECTION .....	12
LOCATION OF ADJUSTMENT PARTS .....	13
LOCATION OF JUMPER WIRES .....	14
RESISTANCE MEASUREMENT .....	15~16
VOLTAGE MEASUREMENT .....	17~18
WAVEFORM MEASUREMENT .....	19
TROUBLE SHOOTING CHART .....	20~27
PARTS LIST .....	28~32
MOUNTING DIAGRAM .....	33~36
SCHEMATIC DIAGRAM .....	37~38



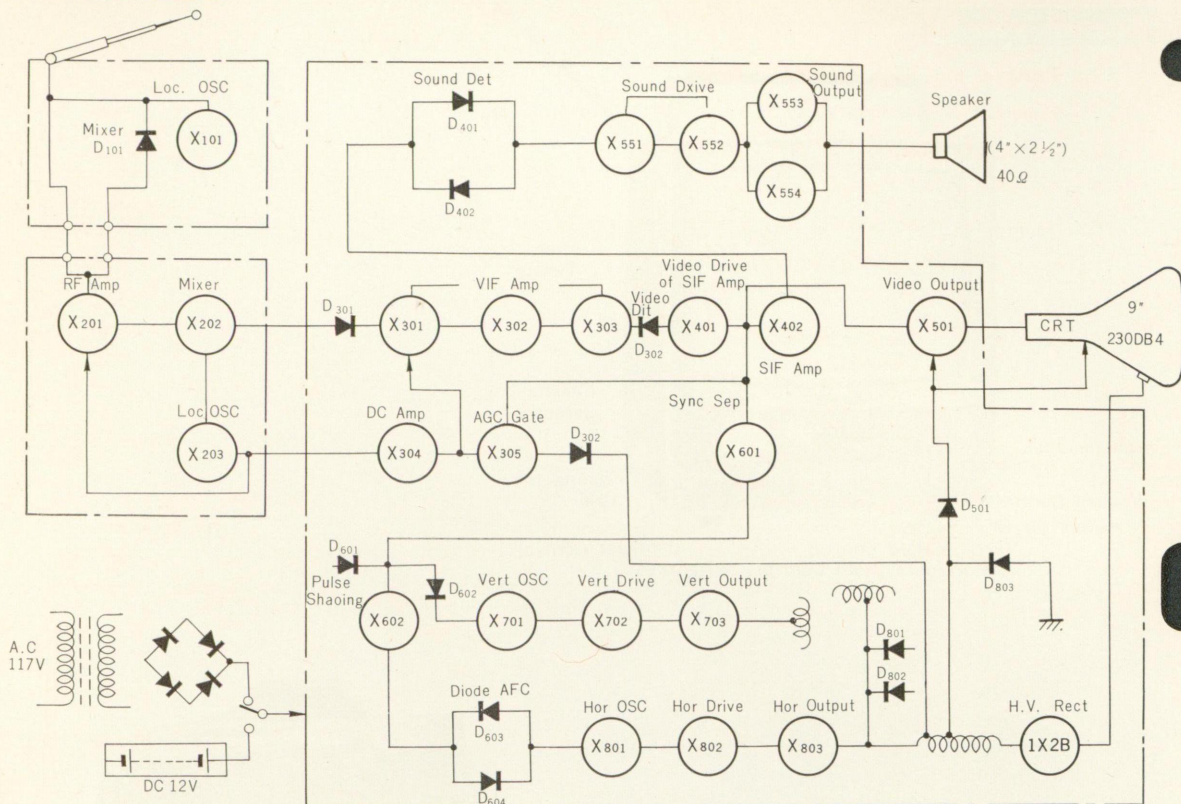
# External View



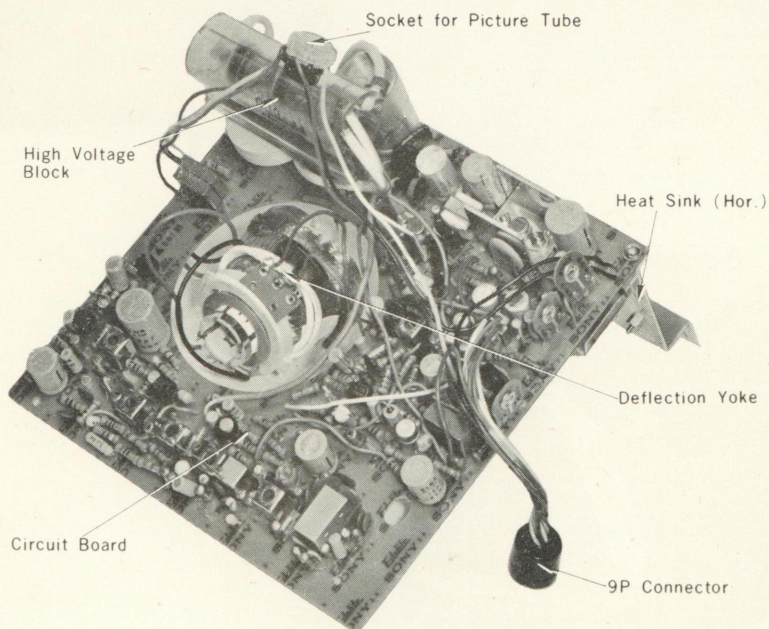
*Slow = pay low something*



## Block Diagram



## Major Parts Location

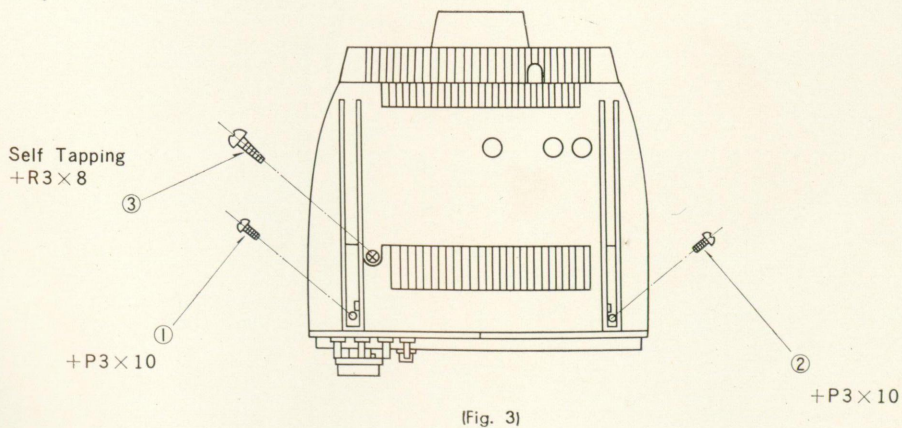
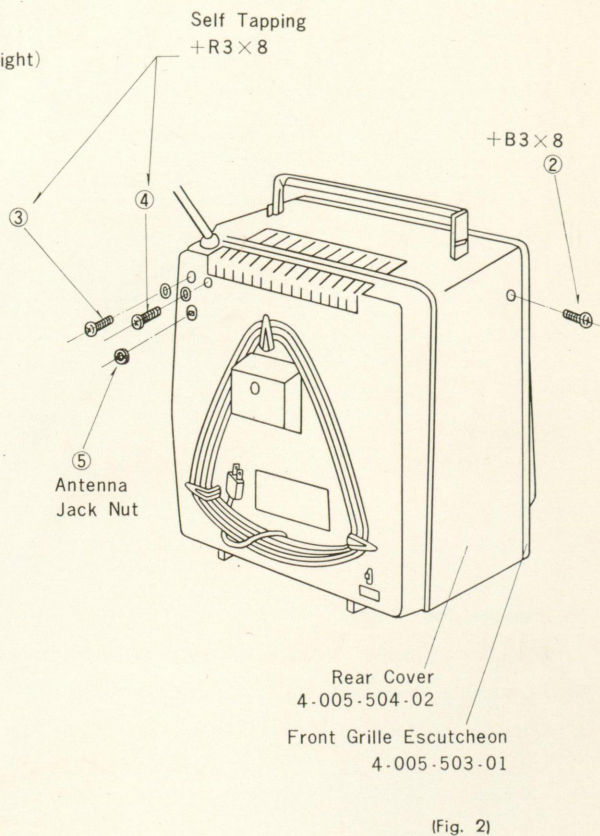
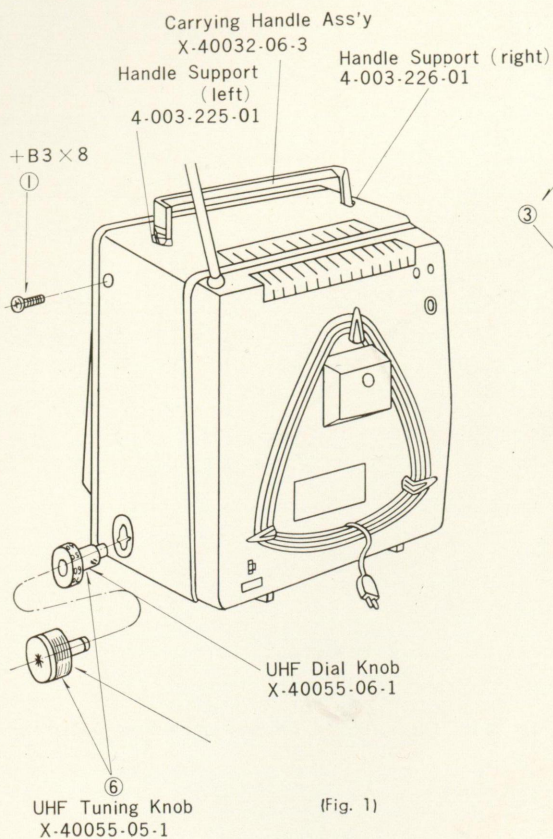




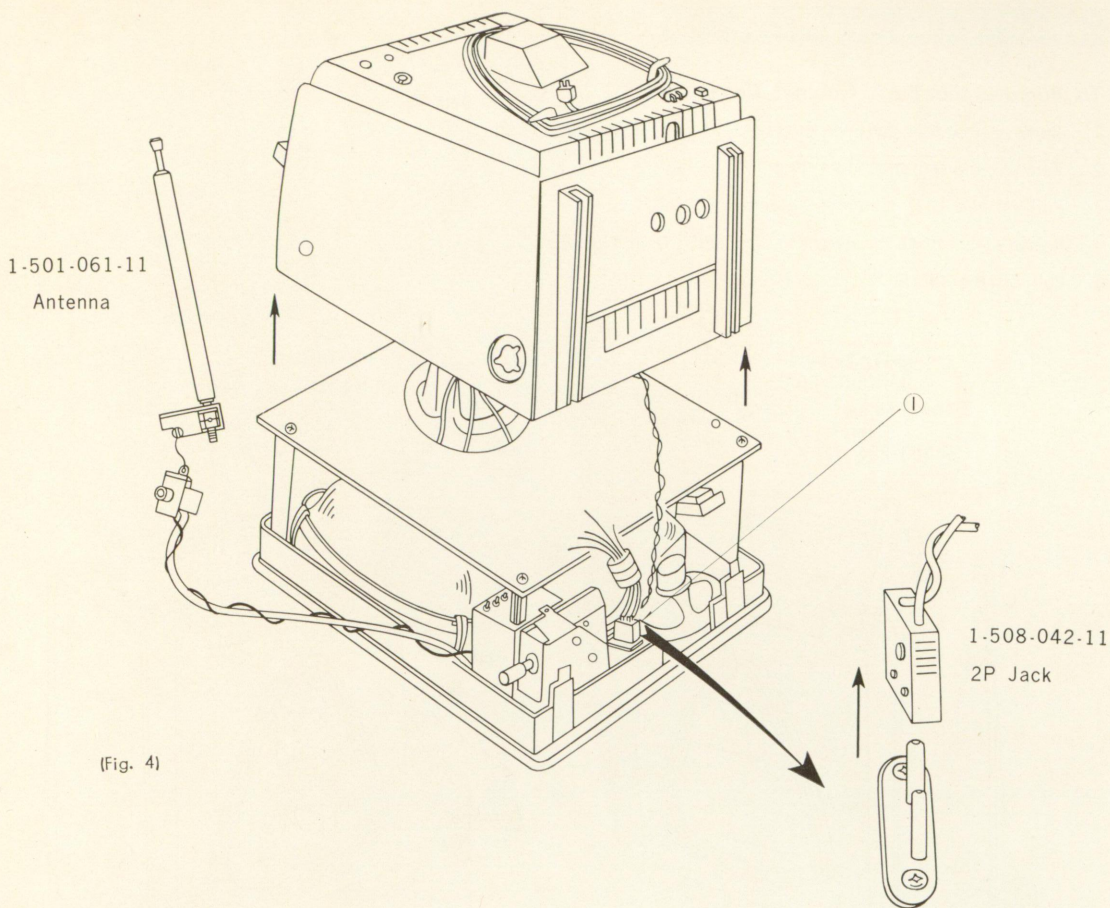
## Method of Disassembling the Set

### To Remove the Back Cabinet Cover

1. Remove the four Screws (①, ②, ③ and ④ in Fig. 1, 2).
2. Remove the Antenna Jack Nut (⑤ in Fig. 2).
3. Pull off the UHF Channel Selector.
4. Remove the three Screws (①, ② and ③ in Fig. 3).
5. Pull off the 2P Jack (① in Fig. 4).

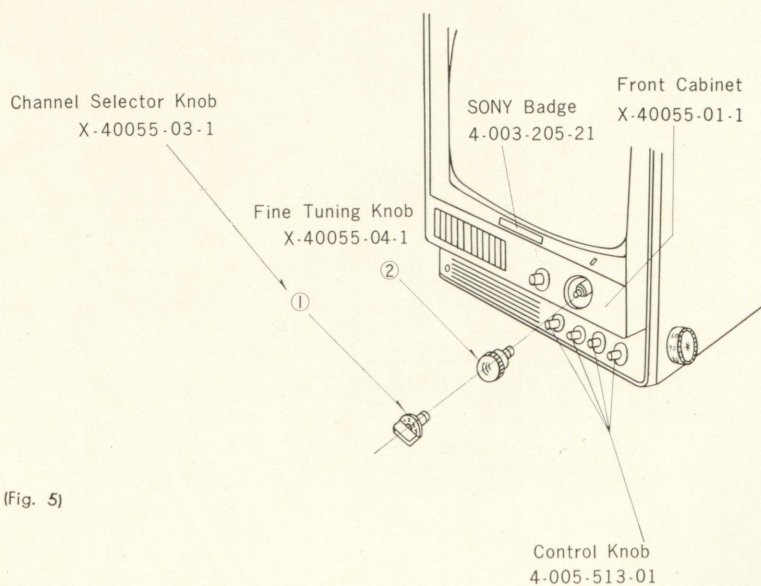




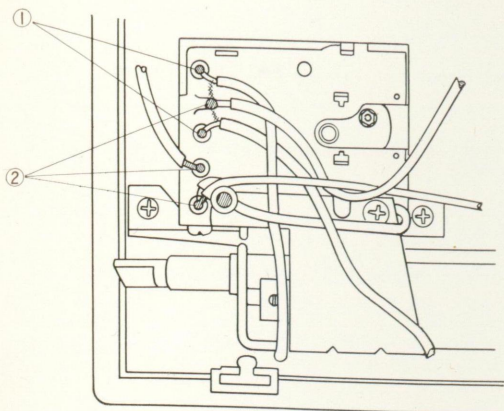


### To Remove the Tuner

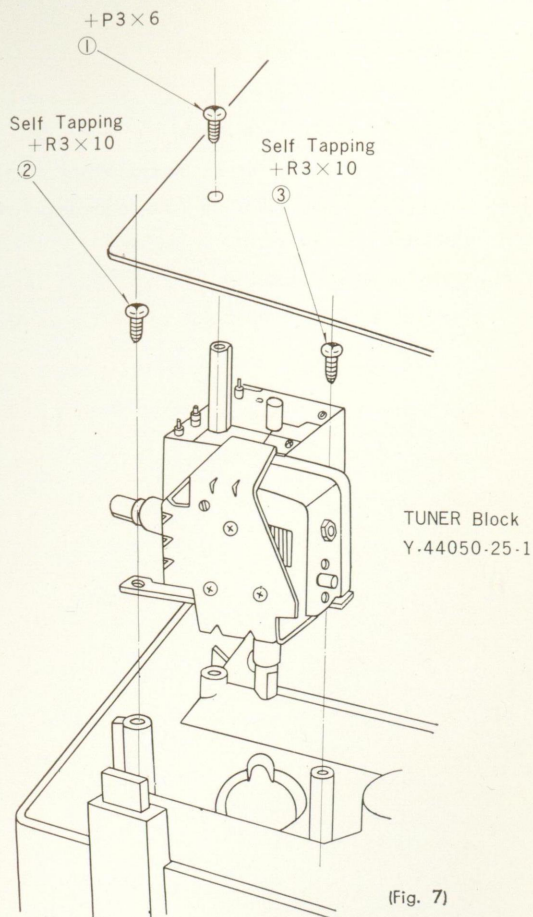
1. Pull off the Channel Selector and the Fine Tuning Knobs (① and ② in Fig. 5).
2. Remove the three Screws (①, ② and ③ in Fig. 7).
3. Unsolder the Shielded leads (① in Fig. 6) and the four leads (Black, Brown, Orange and Yellow) (② in Fig. 6).







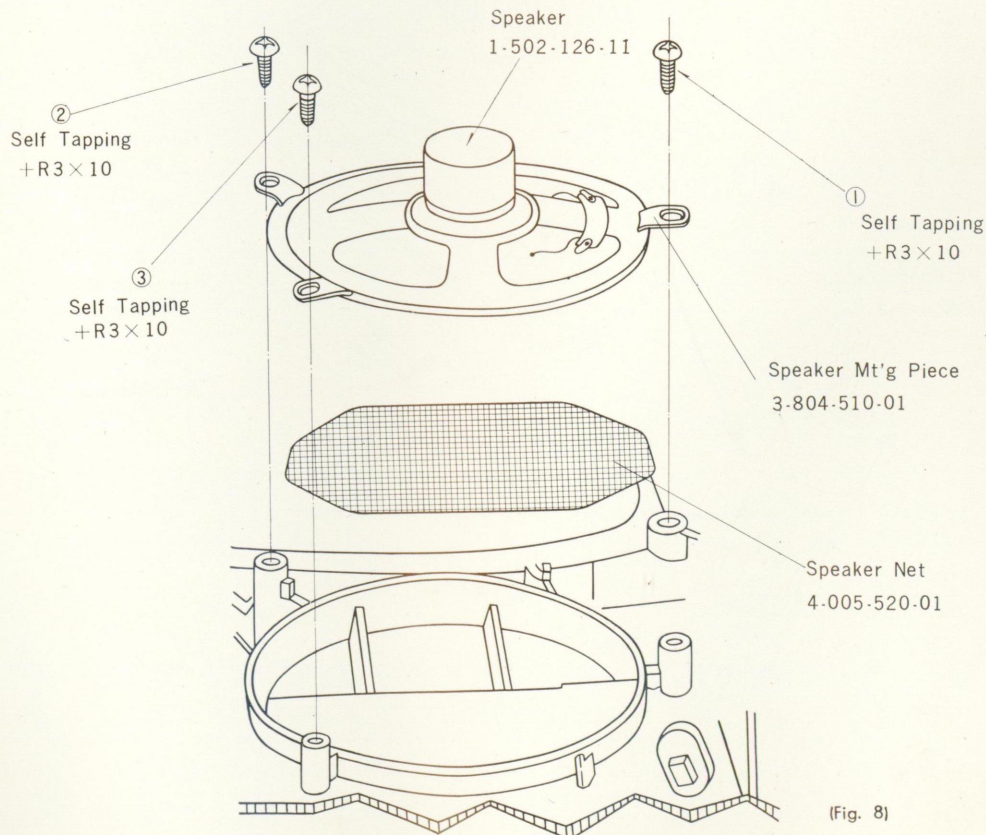
(Fig. 6)



(Fig. 7)

### To Remove the Speaker

1. Remove the three Screws (①, ② and ③) in Fig. 8).

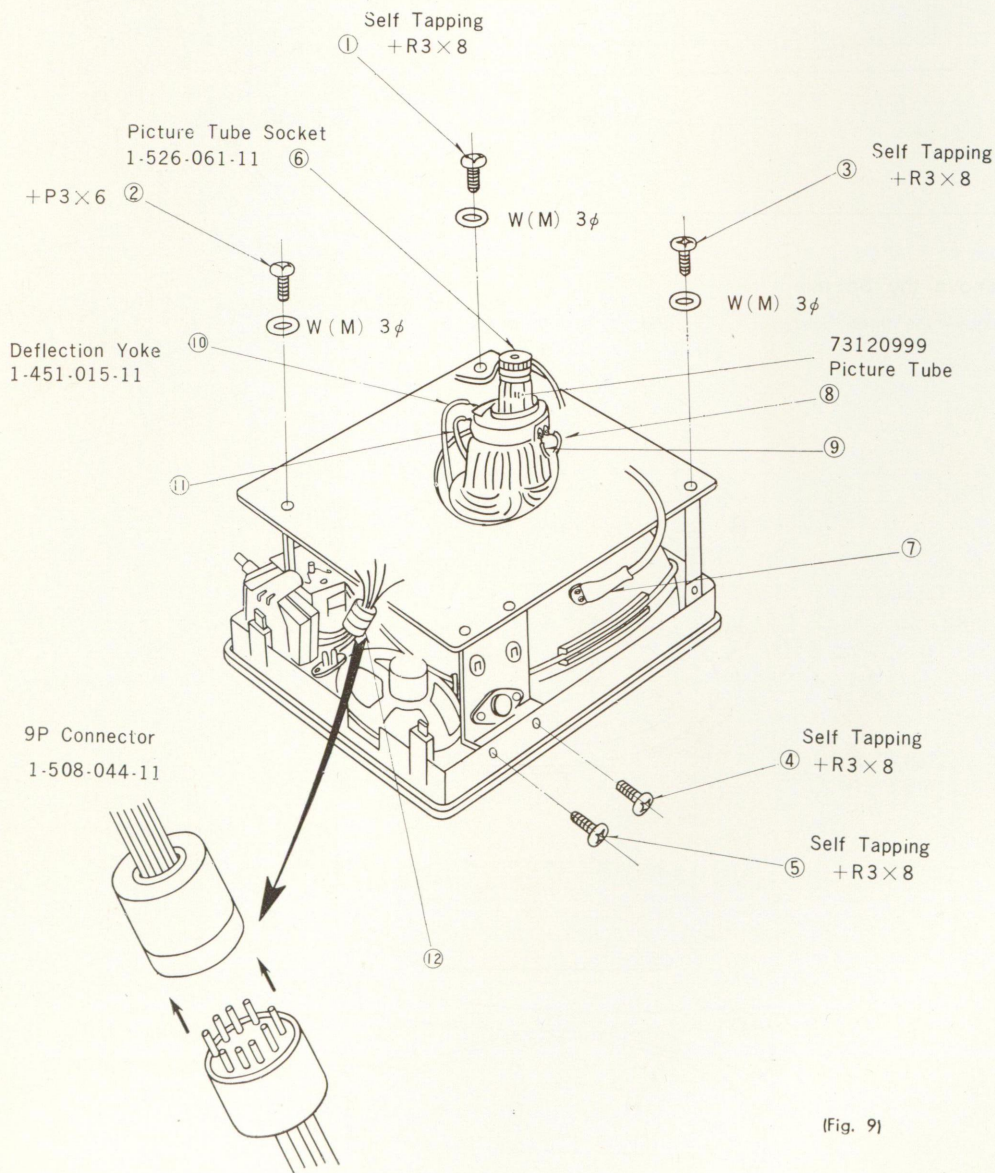


(Fig. 8)



## To Remove the Circuit Board

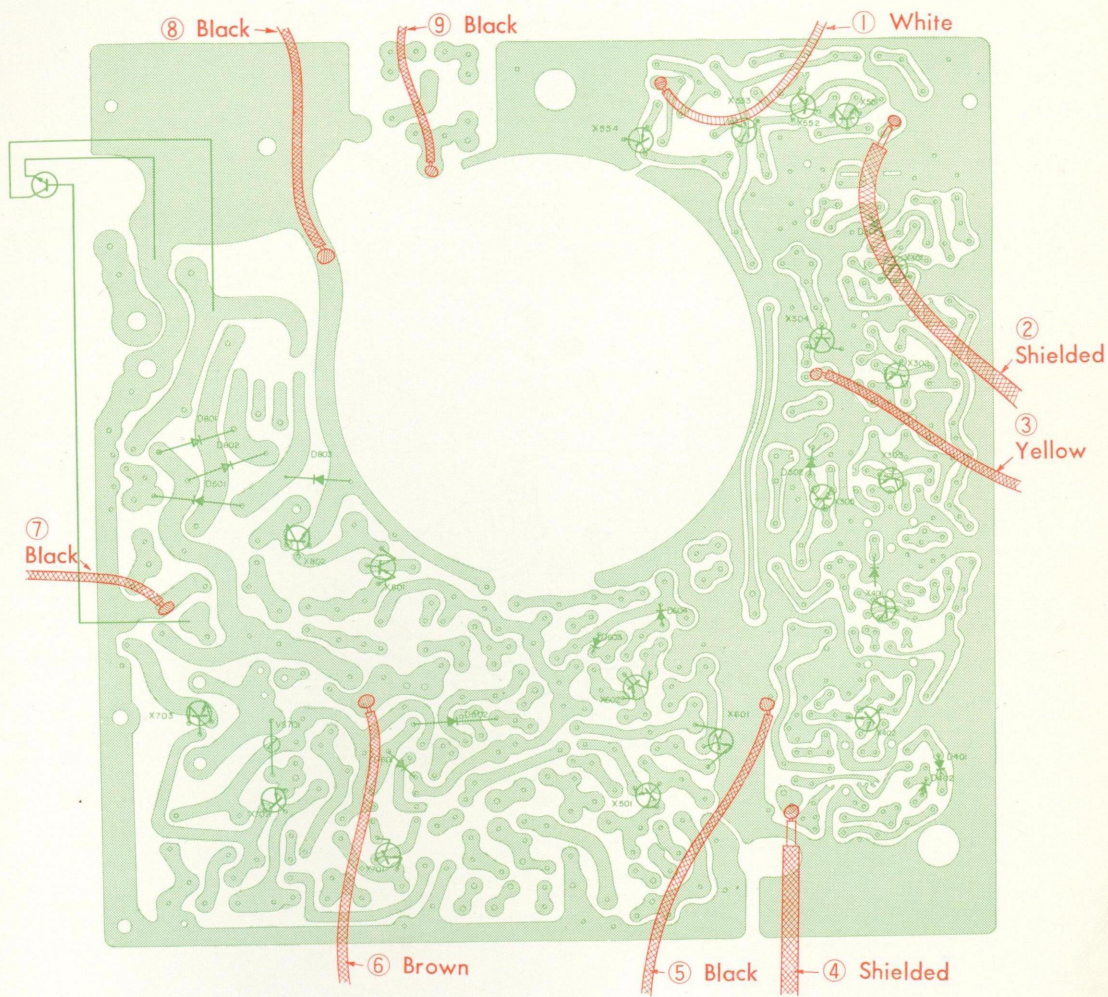
1. Remove the five Screws (①, ②, ③, ④ and ⑤ in Fig. 9).
2. Disconnect Picture Tube Socket (⑥ in Fig. 9).
3. Remove the Anode Cap (⑦ in Fig. 9).
4. Unsolder the four Deflection Yoke leads (Black, Red, Green, and Gray) (⑧, ⑨, ⑩ and ⑪ in Fig. 9).
5. Disconnect 9P Socket (⑫ in Fig. 9).
6. Unsolder seven leads (①, ③, ⑤, ⑥, ⑦, ⑧ and ⑨ in Fig. 10) and two shielded wires (② and ④ in Fig. 10) from the printed side of the Circuit Board.



(Fig. 9)



# Wire Connection on the Circuit Board

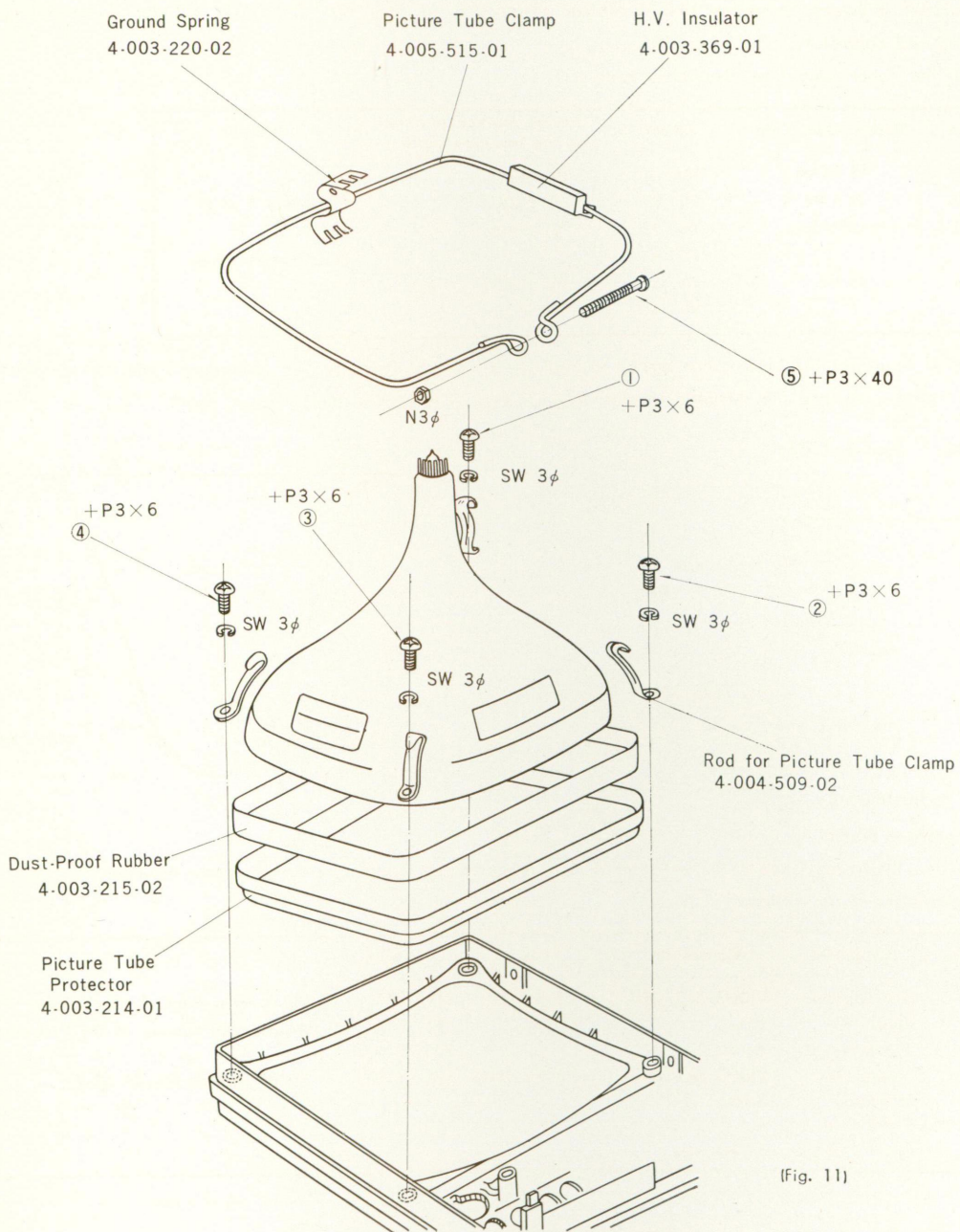


(Fig. 10)



## To Remove the Picture Tube

1. Loosen the Picture Tube Clamp Screw (⑤ in Fig. 11).
2. Remove the four Screws (①, ②, ③ and ④ in Fig. 11).



(Fig. 11)



## Adjustment Procedures

### A. VIF Response Curve Adjustments

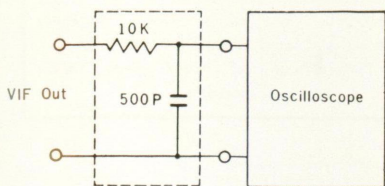
#### Pre-Alignment Steps

1. Unsolder the Keying Pulse Lead.
2. Connect an Oscilloscope to VIF output terminals (across  $R_{404}$ ) through a Noise Filter, which consists of a  $10K\Omega$  resistor and a 500 mfd capacitor as shown in Fig. 12.
3. Connect a Sweep Generator and a Marker Generator to the Test Point (TP) of the Tuner through a 0.02 mfd capacitor.
4. Set the Tuner to a free channel in area.

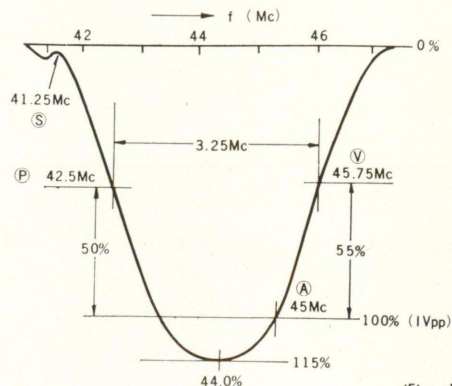
Step	Marker Gen. Freq.	Adjust	Correct Marker position on the response curve	Remarks
1	41.25 Mc	TRAP-1	(S) (dip)	Connect a $1.5 K\Omega$ Resistor across $R_{300}$ .
2	42.5 Mc	VIFT-2	(P) (50%)	
3	45.75 Mc	VIFT-3	(V) (45%)	
4	45 Mc	VIFT-4	(A) (100%—1 Vpp)	

**Note:** If a proper response curve similar to Fig. 13 is not obtained by the adjustment procedures described above, replace the damping resistor ( $R_{313}$  or  $R_{317}$ ) with proper one for best result.

Noise Filter



(Fig. 12)



(Fig. 13)

### B. SIF Adjustments

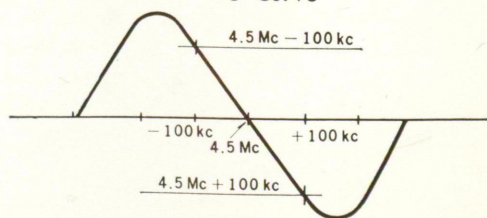
#### Pre-Alignment Steps

1. Set the Brightness Control to the optimum and the Contrast Control to the maximum positions.
2. Remove the Tuner Output Leads.

Step	Equipment	Connection	Freq.	Adjust	
1	Test Oscillator	VIDEO DET OUT	4.5 Mc	TRAP 401	for minimum stripes on the picture.
2	Same Voltmeter	Same Across $R_{412}$	4.5 Mc	SIFT <sub>1</sub> & Pri. of SIFT <sub>2</sub> (Pink)	for maximum reading on the Voltmeter.
3	Sweep Gen. Standard Signal Gen. Oscilloscope	VIDEO DET OUT Same Across $C_{413}$	4.5 Mc (AM)	Sec. of SIFT <sub>2</sub>	for minimum modulated wave.

- Note:**
1. Repeat the above procedures two or three times.
  2. If S curve is not symmetrical with respect to the intersection of the S curve and return line, adjust primary of SIFT<sub>3</sub> for optimum result.

S Curve

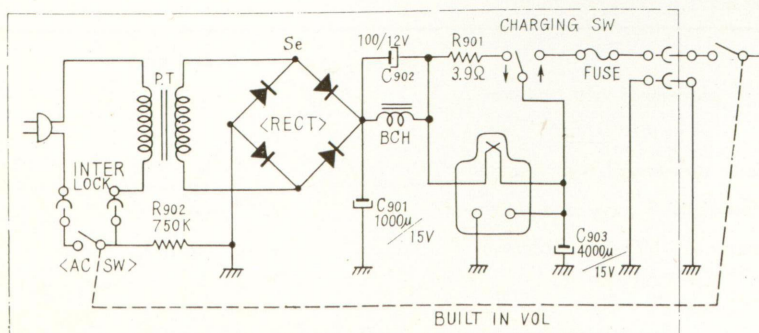
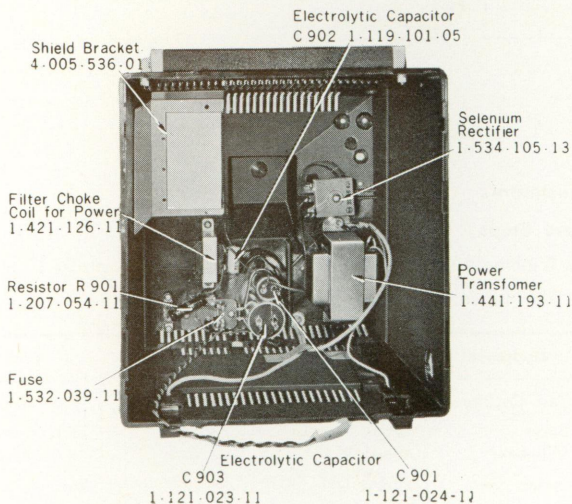




### C. Deflection Circuit Adjustments

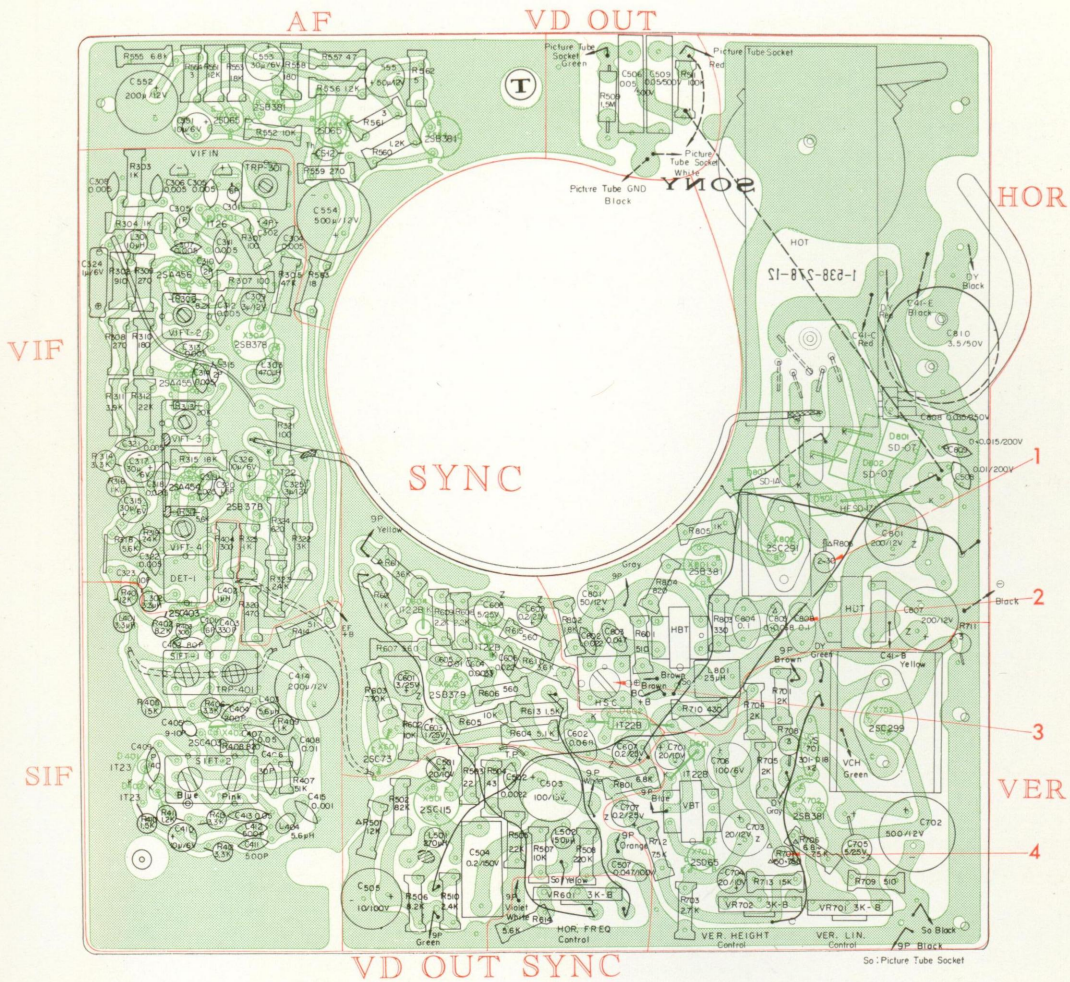
Step	Adjustment for	Preliminary Instruction	Equipment	Connection	Adjust	
1	Ic of $X_{501}$ (VID. Out)	Set to free channel. Check 12V and 85V Power Supply.	Voltmeter	Across $R_{506}$	$R_{501}$ (10K-18K $\Omega$ )	For approx 38V reading.
2	Ic of $X_{702}$ (Vert. Out)	Lock in Sync. Check 12V Power Supply.	Same	Across $R_{711}$	$R_{707}$ (150 $\Omega$ -1.8K $\Omega$ )	For approx. 0.44-0.41 V reading.
3	Vert. Height and Linearity	Receive a Test Pattern.			$VR_{701}$ (Vert. Lin.) $VR_{702}$ (Vert. Height)	For optimum Vertical Height and Linearity on the pattern.
4	Pulse Width	Lock in Sync.	Oscillo- scope	Emitter of $X_{801}$	$C_{805}$ (0.01-0.1 $\mu$ F) HSC	For 12-13.5 $\mu$ sec.
5	HSC (Horizontal Stability Coil)	Lock in Sync. Receive a Test Pattern.				So that the picture is stable in either case where HSC is shorted or normal.
6	Ic of $X_{802}$ (Hor. Drive)		Ammeter	between Collector of $X_{802}$ & $X_{806}$	$R_{806}$ (1-20 $\Omega$ )	For 75 mA reading on the Ammeter.
7	Horizontal Frequency	Set the Contrast and Brightness Controls to optimum positions. Receive a Test Pattern.			$VR_{601}$ (Hor. Freq.)	To obtain same number of diagonal bars by apply'ing some electrical shocks respectively when setting $VR_4$ to fully clock-wise and counter-clockwise positions.
8	Focus	Same Lock in Sync.			Position of second grid lead for Picture Tube	To either originally soldered point or ground, whichever gives better focus.

## Power Supply Section

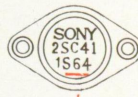
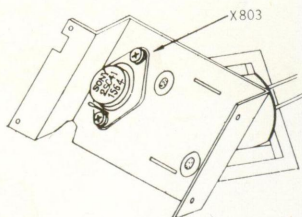




## Location of Adjustment Parts



Only the transistor (2SC41) with the **digits** of 24, 34, 44, 54, 64, 74 or 84, can be used for X803.



The digit is indicated here.

### Adjustment

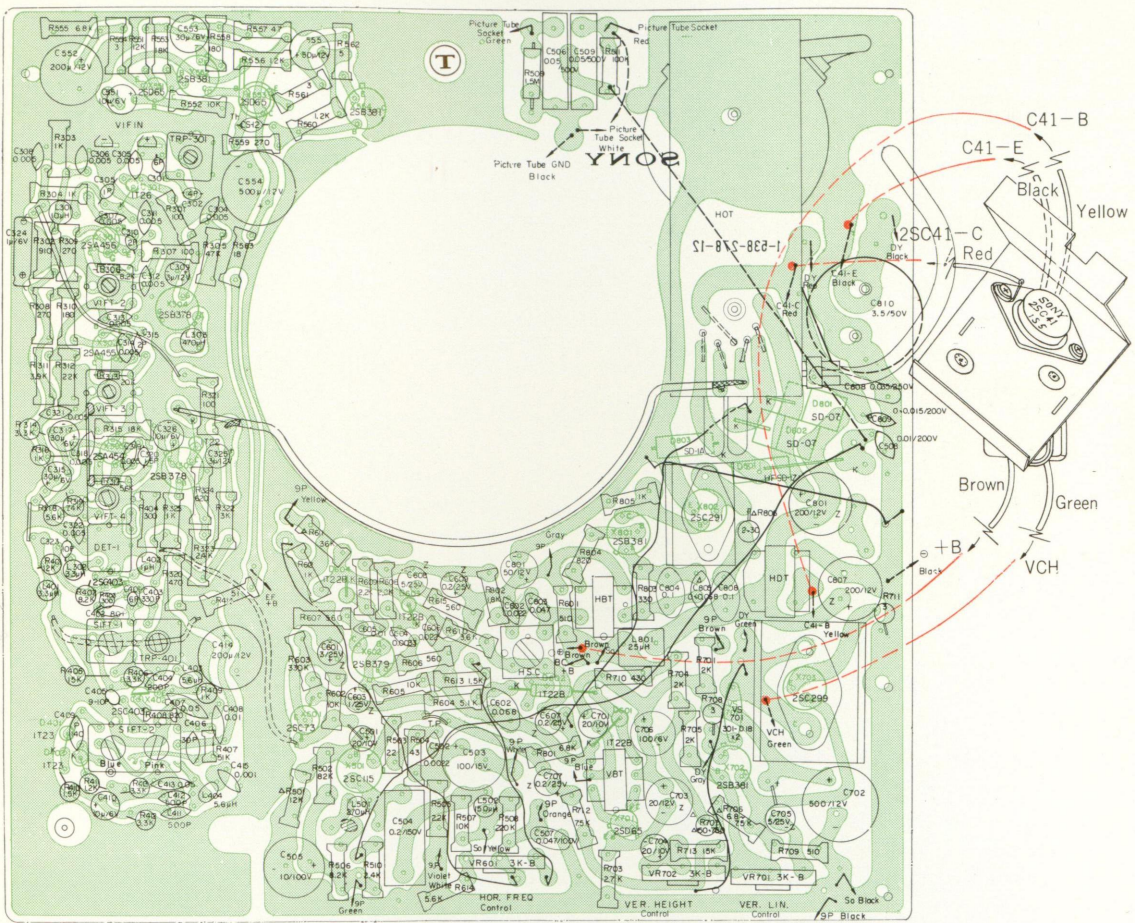
- 1 Ic of X802 (HOR Drive)
- 2 Pulse Width
- 3 Stable picture in either case where HSC is shorted or normal.
- 4  $140 \pm 5 \text{ mA}$  (Ver. Bias)

## Adjusting Parts

R806, 3.9-22 ohms  
C805, 0-0.047  $\mu$ F  
R707, 150-1.5K ohms  
HSC



## Location of Jumper Wires

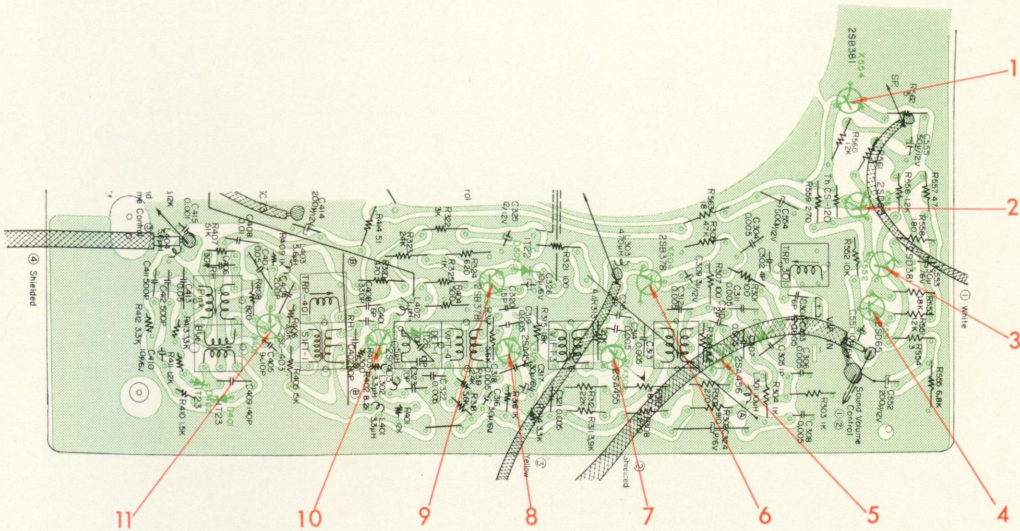


So : Picture Tube Socket



# Resistance Measurement

—VIF, SIF and AF Circuit—



\* Measured with Circuit Tester (10 Kohms/V.)

\*  $\oplus$  Black  $\ominus$  Red  
Tester Lead Color  
\* Resistance in ohm

1 X554  
E B C  
100 100  
10 10  
30-50  
20-30

2 X553  
E B C  
10-20 10-15  
100 300  
40-60  
12

3 X552  
E B C  
2K 2K  
10 10  
70-80  
200

4 X551  
E B C  
10-20 10-20  
 $\infty$   $\infty$   
1K  
200-300

5 X301  
E B C  
200-300 2K  
15 15  
200  
150-200

6 X304  
E B C  
 $\infty$  1K  
10 10  
25  
 $\infty$

7 X302  
E B C  
200-300 2K  
15 15  
200-300  
200

8 X303  
E B C  
200-300 2K  
15 15  
150-300  
150-200

9 X305  
E B C  
2K  $\infty$   
10 10  
 $\infty$   
200-300

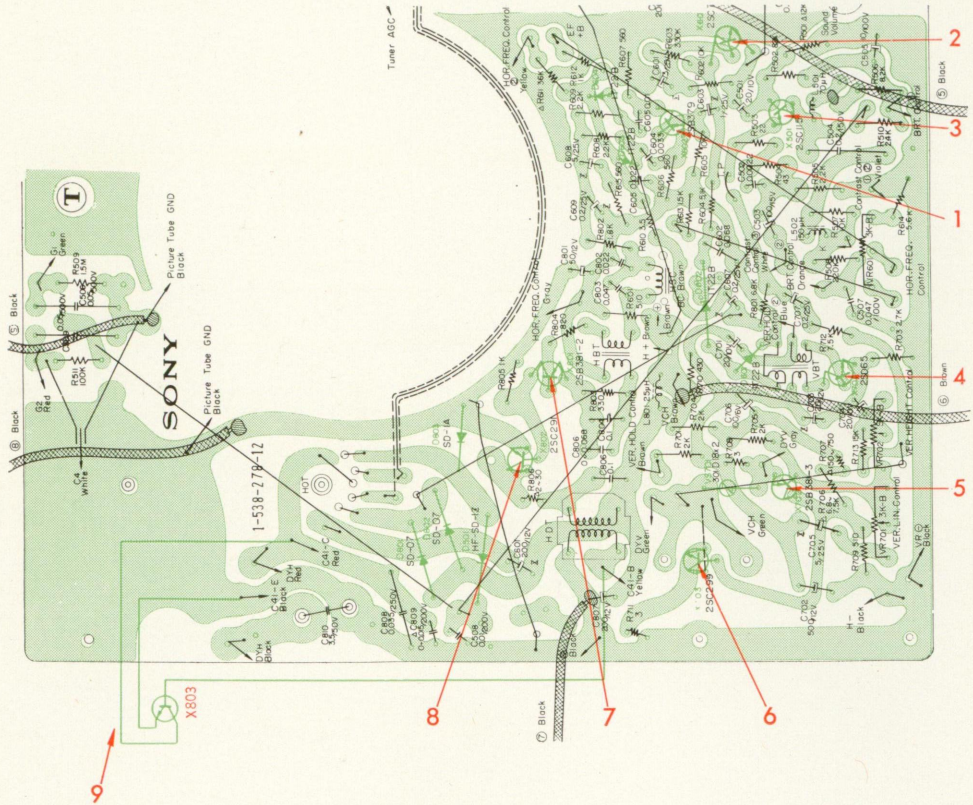
10 X401  
E B C  
20 20  
 $\infty$   $\infty$   
800  
300-400

11 X402  
E B C  
20 20  
 $\infty$   $\infty$   
2K  
200-300



# Resistance Measurement

## —Deflection Circuit—



\* Measured with Circuit Tester (10 Kohms/V.)

⊕  
Black  
Tester Lead Color  
⊖  
Red

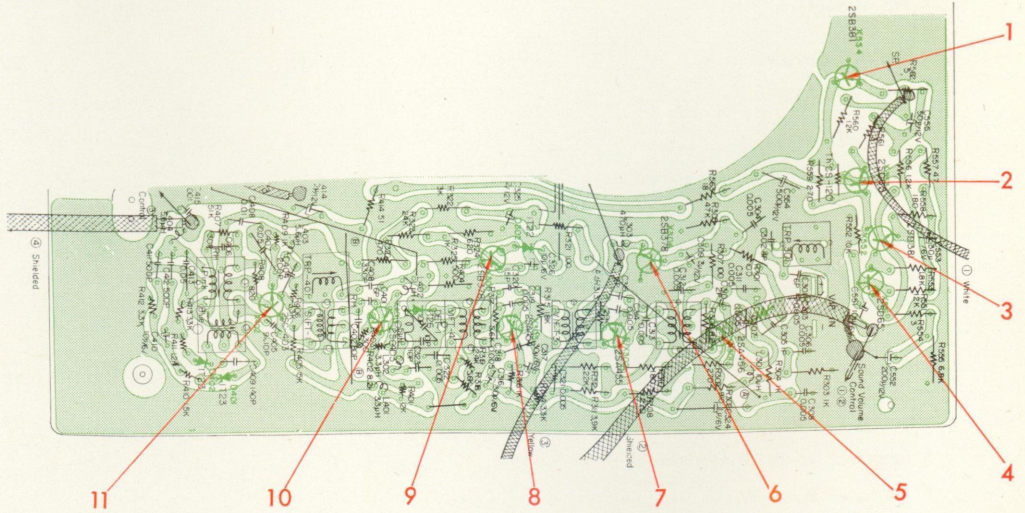
\* Resistance in ohm

<b>1 X602</b> E B C ∞ ∞ 10 10 500-1K 1K	<b>2 X601</b> E B C 15 60-150 ∞ ∞ ∞ ∞	<b>3 X501</b> E B C 20 20 ∞ ∞ ∞ ∞	<b>4 X701</b> E B C 10-20 10-20 ∞ ∞ ∞ ∞	<b>5 X702</b> E B C ∞ ∞ 10 10 200-300 60
<b>6 X703</b> E B C 15 15 400 400 100-200 150	<b>7 X801</b> E B C ∞ ∞ 10 10 1K 1K	<b>8 X802</b> E B C 20 20 1K 1K 100-200 100	<b>9 X803</b> E B C 0 15 0 1K-∞ 15 1K-∞	



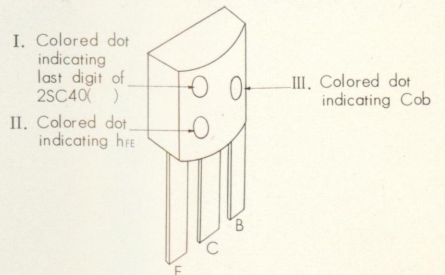
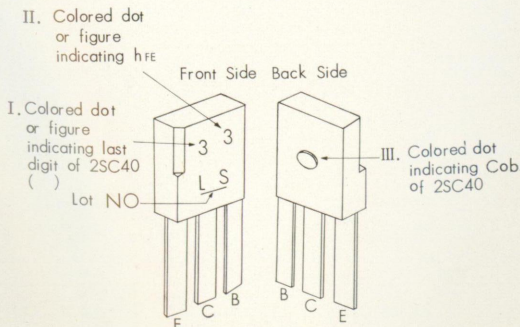
# Voltage Measurement

## —VIF and AF Circuit—



- \* Power Supply Voltage: 12 V
- \* AGC Voltage : -10 V
- \* Measured with Circuit Tester (10 Kohms/V.)
- \* Measured from ground to points indicated.

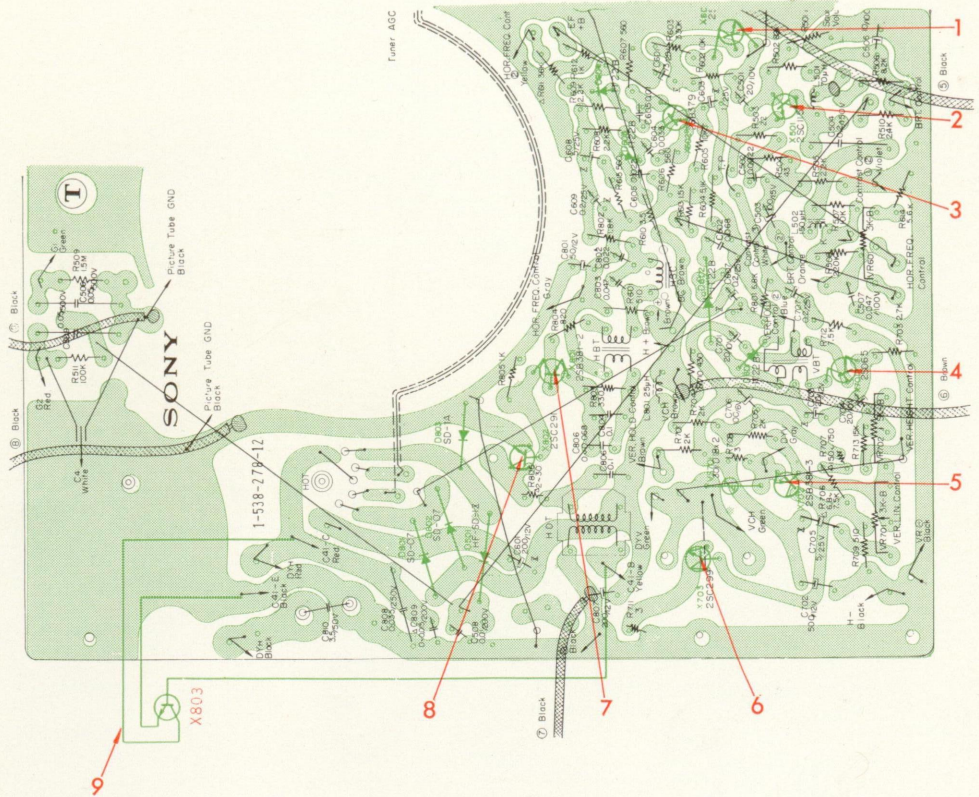
1 X554 { E 6.0V B 6.0V C 0 V	2 X553 { E 6.0V B 6.0V C 12.0V	3 X552 { E 12.0V B 12.0V C 6.0V	4 X551 { E 5.0V B 5.0V C 12.0V	5 X301 { E 9.5V B 9.5V C 6.0V	6 X304 { E 0.1V B 6.0V C 0 V
7 X302 { E 9.5V B 9.0V C 0 V	8 X303 { E 9.5V B 9.0V C 0 V	9 X305 { E 1.8V B 2.7V C -0.7V	10 X401 { E 2.8V B 3.5V C 7.5V	11 X402 { E 1.2V B 1.7V C 9.5V	





# Voltage Measurement

## —Deflection Circuit—



- \* Power Supply Voltage: 12.0 V(10Kohms/V)
- \* Measured with Circuit Tester (10Kohms/V)
- \* Measured from ground to points indicated.

**1** X601  
E 2.5V  
B 1.8V  
C 7.5V

**2** X501  
E 11.5V  
B 12.0V  
C 6.0V

**3** X602  
E 7.5V  
B 8.5V  
C 0.5V

**4** X701  
E 7.5V  
B 6.0V  
C 10.0V

**5** X702  
E 10.0V  
B 10.0V  
C 1.0V

**6** X703  
E 0.4V  
B 1.0V  
C 10.0V

**7** X801  
E 7.0V  
B 7.5V  
C 0.2V

**8** X802  
E 0 V  
B 0.2V  
C 10.0V

**9** X803  
E 0 V  
B —  
C 18.0V

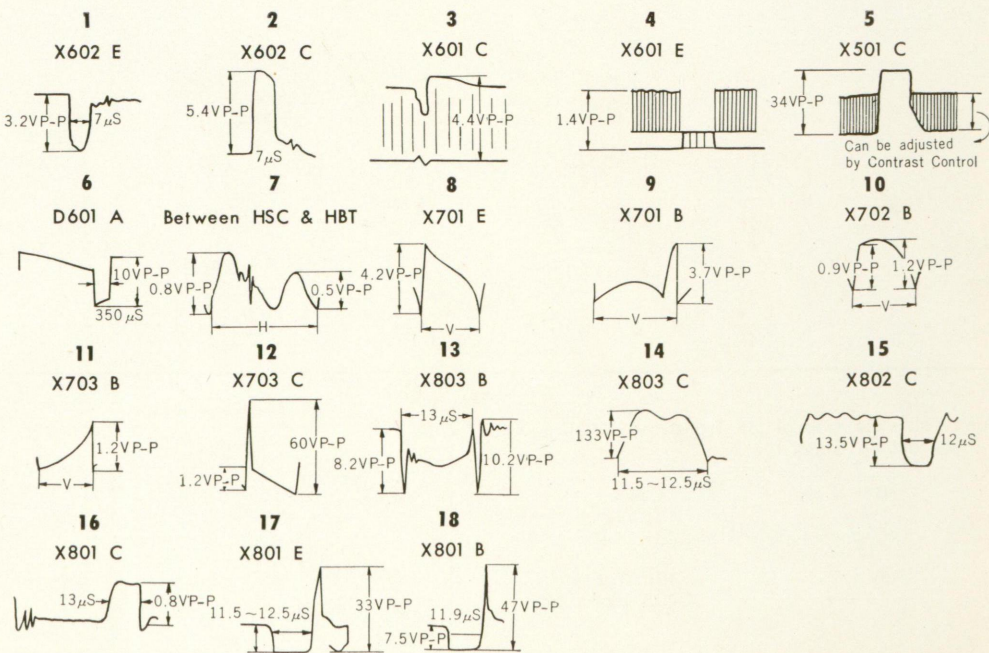
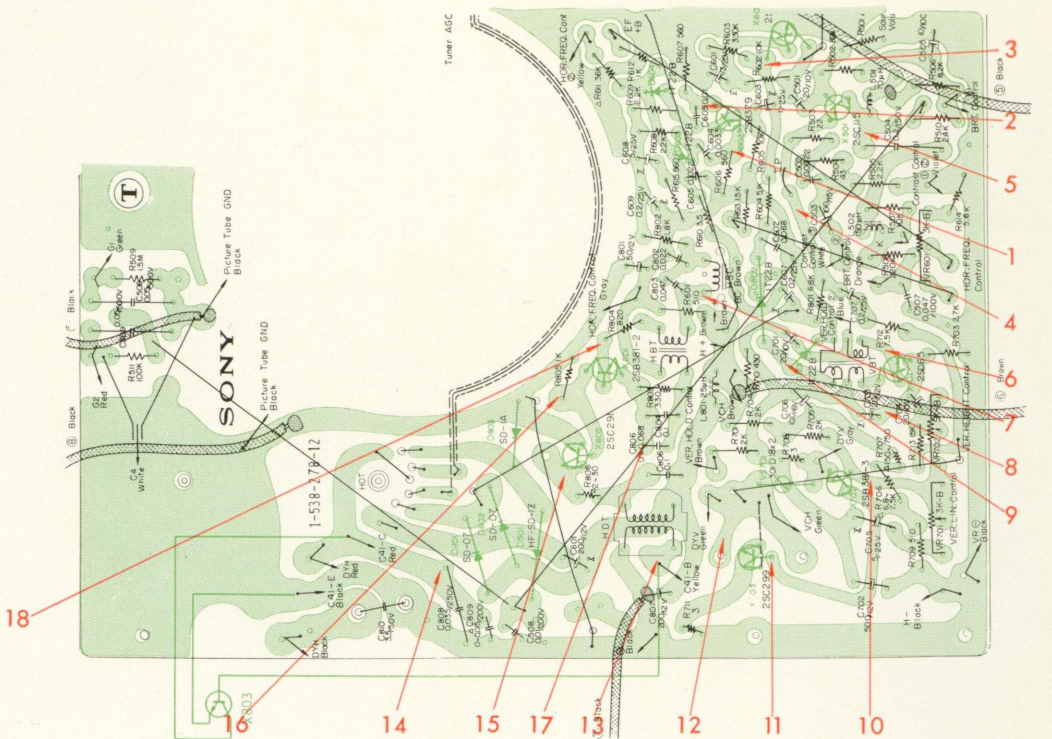
Combination Table for Cob of SIF Transistor (X401 & X402) and CN (Neutralizing Capacity)

Tr. Sym	Dot Color	CN
X401	Brown	C401 6pF
X402	Orange	C405 9pF
X401	Red	C401 6pF
X402	Yellow	C405 10pF

Classification of 2SC40

Indication on the Body	I		II		III	
	Last digit of 2SC40( )		$h_{FE}$		Cob	
	2SC40(1)	red	1	brown	1.7~1.9	brown
	n (2)	yellow	2	red	1.9~2.1	red
	n (3)	white	3	orange	2.1~2.3	orange
			4	yellow	2.3~2.5	yellow
			5	green		
			6	blue		

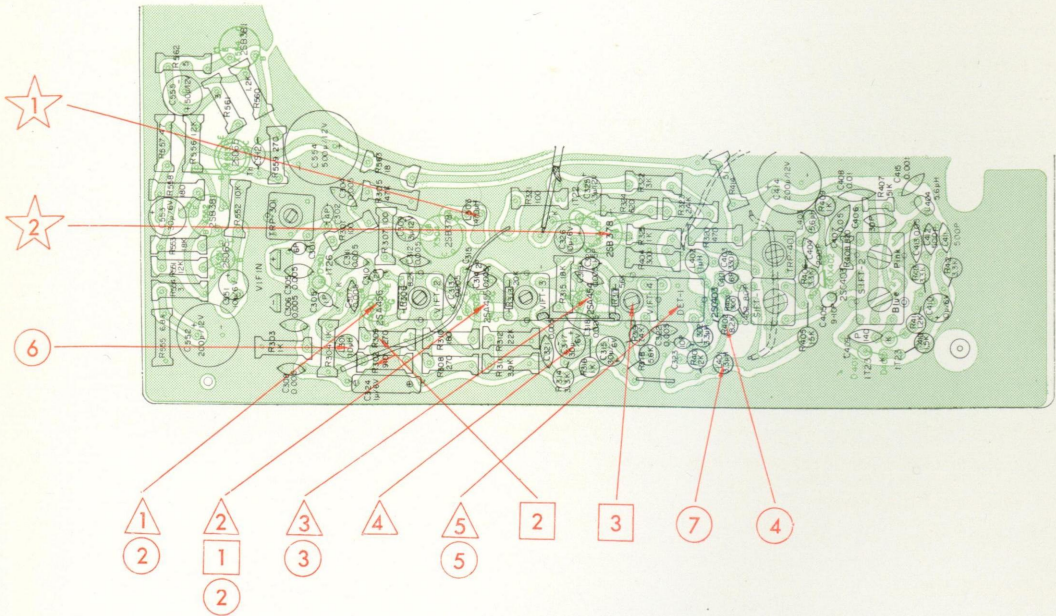






	Page
<b>VIF Citcuit</b> .....	21
<ul style="list-style-type: none"> <li>* VIF Oscillation</li> <li>* Low Gain</li> <li>* Poor AGC Operation</li> <li>* No Waveform</li> </ul>	
<b>SIF and AF Circuit</b> .....	22
<ul style="list-style-type: none"> <li>* Low AF Gain</li> <li>* Low SIF Gain</li> <li>* No SIF Gain</li> <li>* No AF Signal</li> <li>* SIF Oscillation</li> <li>* Normal Picture with Weak or Distorted Sound</li> </ul>	
<b>No Raster</b> .....	23
<b>Horizontal Circuit</b> .....	24
<ul style="list-style-type: none"> <li>* Incorrect value of Horizontal Drive Current</li> <li>* Improper Pulse Width</li> <li>* Folded Picture on right side</li> </ul>	
<b>Vertical Circuit</b> .....	25
<ul style="list-style-type: none"> <li>* Insufficient Vertical Height</li> <li>* Vertical Movement (Picture moves slowly up and down)</li> <li>* No Vertical Output</li> </ul>	
<b>Video Circuit</b> .....	26
<ul style="list-style-type: none"> <li>* Saturated White Peak</li> <li>* Smears in Picture</li> <li>* Dark picture on upper side</li> <li>* Dark picture on left side</li> <li>* No picture</li> </ul>	
<b>SYNC and Miscellaneous</b> .....	27
<ul style="list-style-type: none"> <li>* Loss of Vertical and Horizontal SYNC</li> <li>* High Voltage Discharge</li> <li>* Excessive Current Drain</li> <li>* Weak Horizontal SYNC</li> </ul>	





○ No Waveform

- ① Open X301
- ② Open X302
- ③ Open X303  
(Leakage between E and C)
- ④ Defective X401
- ⑤ Open or shorted DET Block
- ⑥ Open L301
- ⑦ Open L401

□ VIF Oscillation

- ① Defective X302
- ② R302 contacts with R309
- ③ Defective VIFT4

△ Low Gain

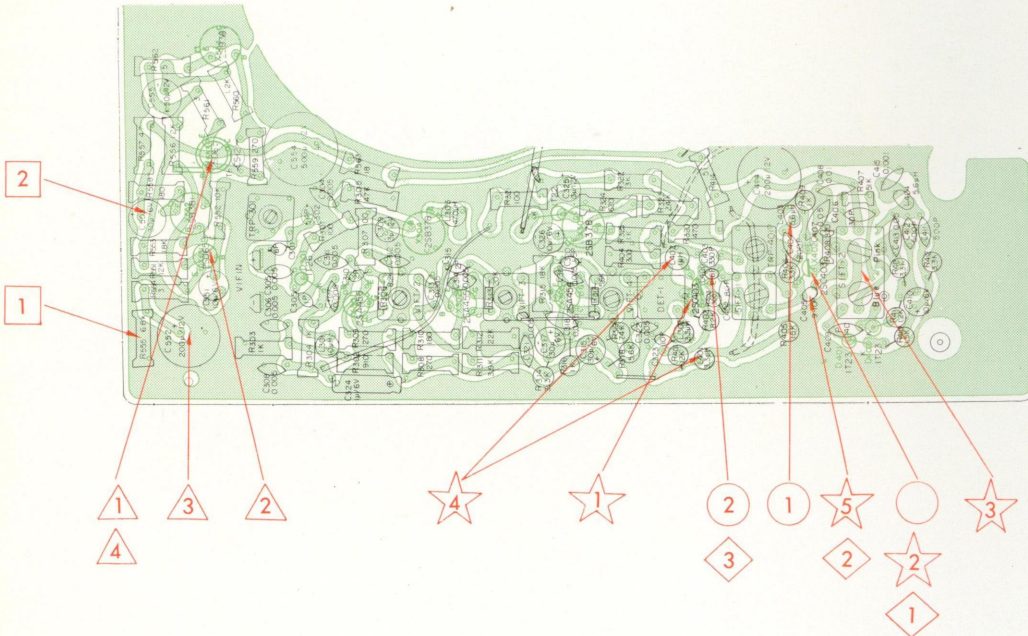
- △ Defective X301  
(Low reverse resistance between B and E)
- △ Defective X302
- △ Defective X303  
(Low reverse resistance between B and E)
- △ Leaky C317
- △ Defective DET Block
- △ Damping Resistor (R306, R313, R317),  
mounted on the printed side, contact  
to near copper foil

☆ Poor AGC Operation

- ☆ Open L303.....No AGC effect
- ☆ Open X305.....No Tuner AGC effect

NOTE : E : Emitter  
B : Base  
C : Collector





- Low SIF Gain
- ① Open L403
- ② Open C401
- ③ Defective X402

- Low AF Gain
- ① Open R555
- ② Leaky C553

- ◇ SIF Oscillation
- ◇ Defective X402
- ◇ Defective C405
- ◇ Incorrect value of C401 (Neutralizing Capacitor)

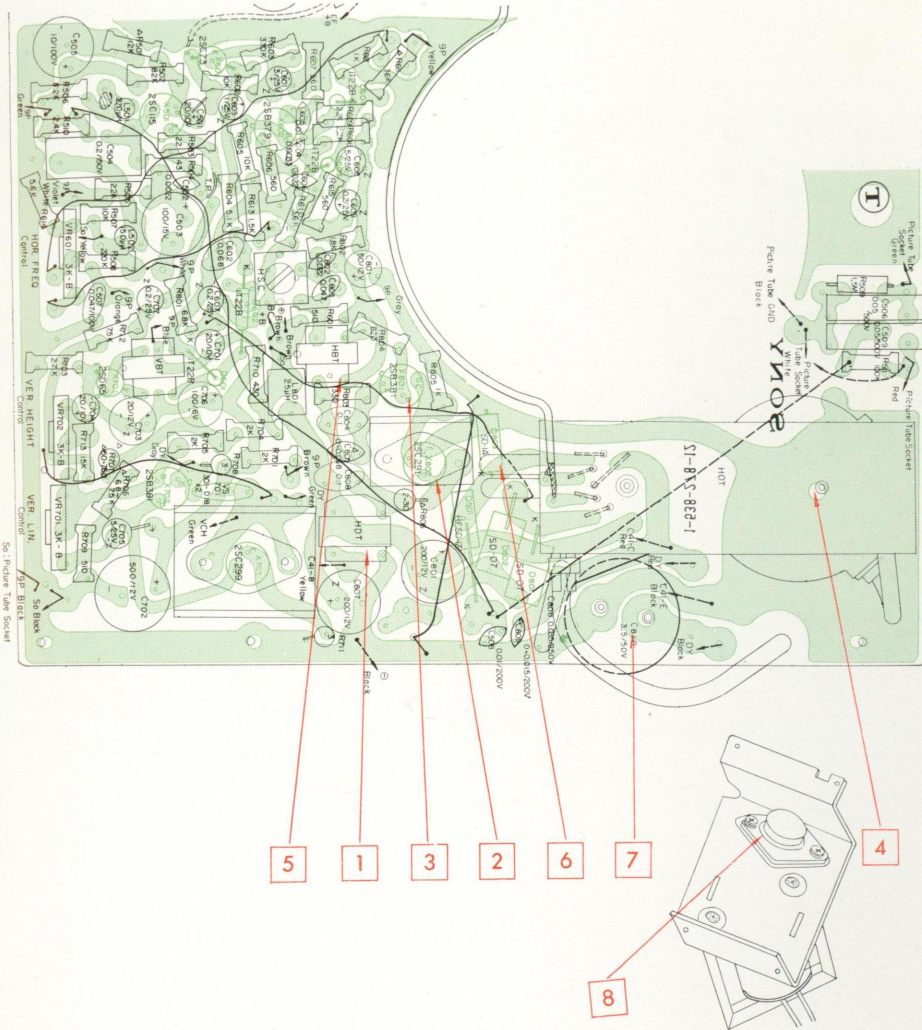
- △ No AF Signal
- △ Defective X553
- (Leakage between B and C or breakage between B and E)
- △ Defective X552 (Leakage between E and C)
- △ Shorted C552
- △ Contact between the Emitter and the Collector leads of X553

- ☆ No SIF Gain
- ☆ Open X401 (between B and E)
- ☆ Open X402 (between B and E)
- ☆ Open or shorted SIFT2
- ☆ Open L401, L402
- ☆ Open L403

Normal Picture with weak or distorted sound.

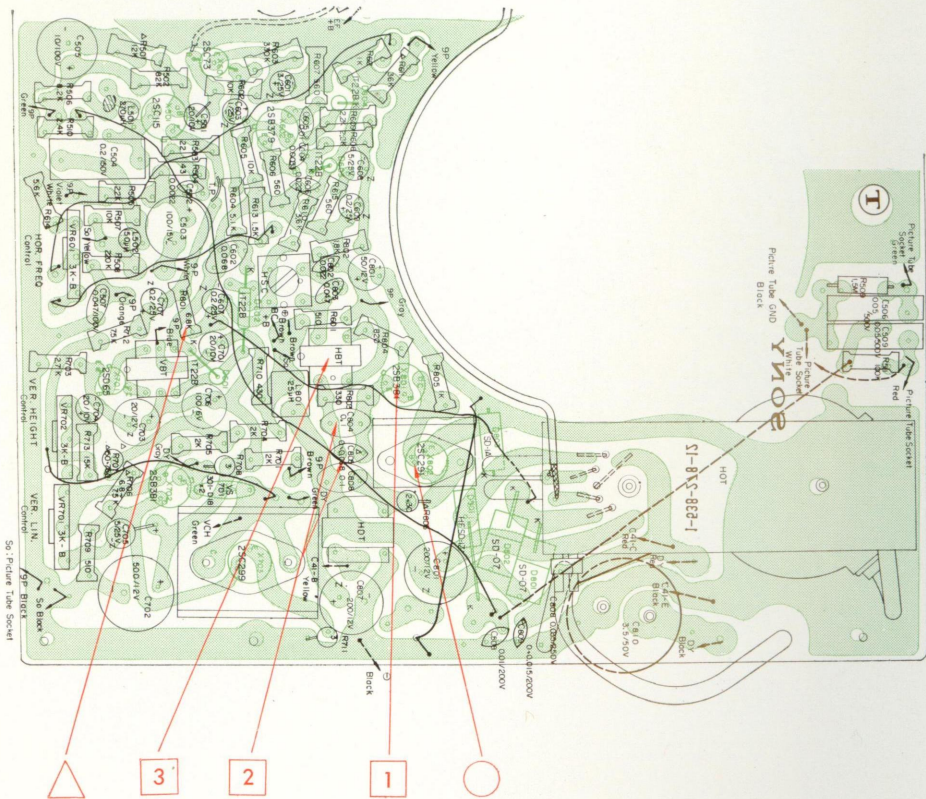
In this case refer to No AF Signal and Low SIF Gain.





- 1 Open HDT
- 2 Open X802
- 3 Defective X801 (Leakage between E and C) or improper pulse width.
- 4 Open FBT (Sec. winding)
- 5 Open HBT
- 6 Open D803
- 7 Defective C810
- 8 Defective X803



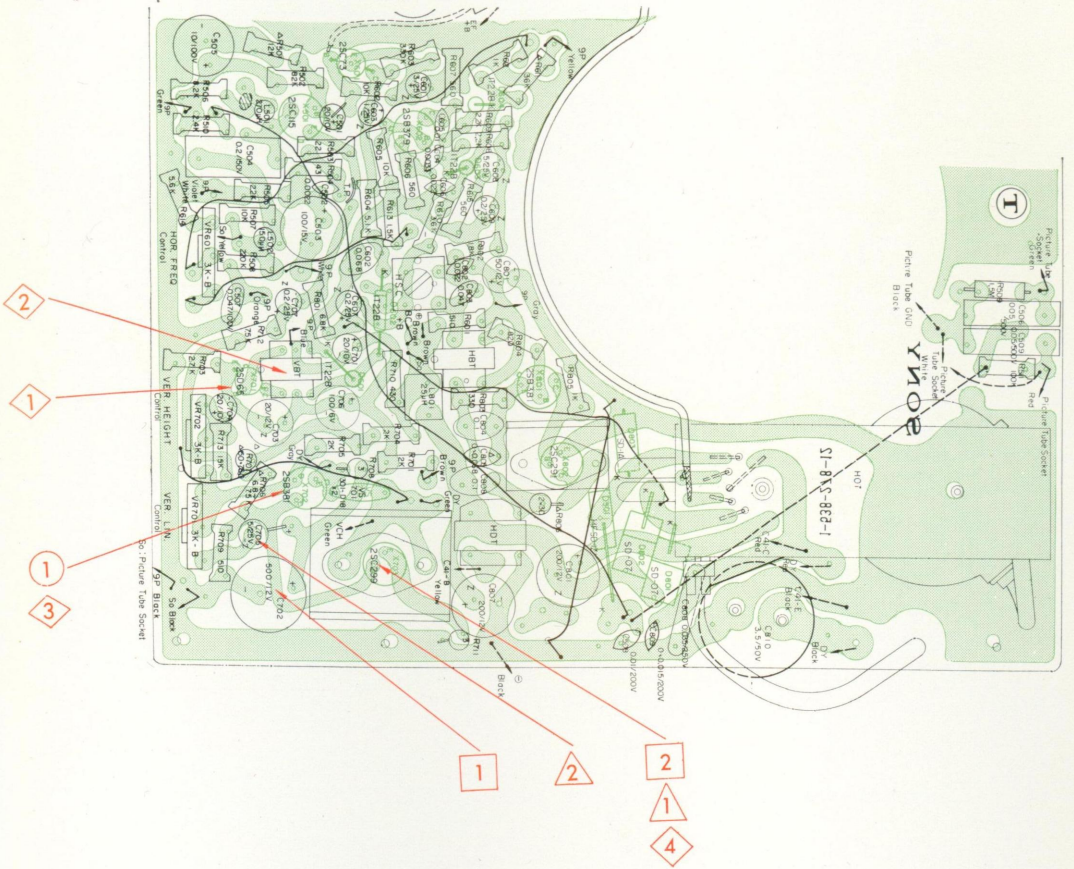


- Improper Pulse Width
- ▢ Defective X801
- ▣ Defective HBT
- ▤ Defective C804 or C805 (leakage or decrease in capacity)

- Incorrect value of Horizontal Drive Current
- Defective X802

- △ Folded Picture on right side
- Open R801





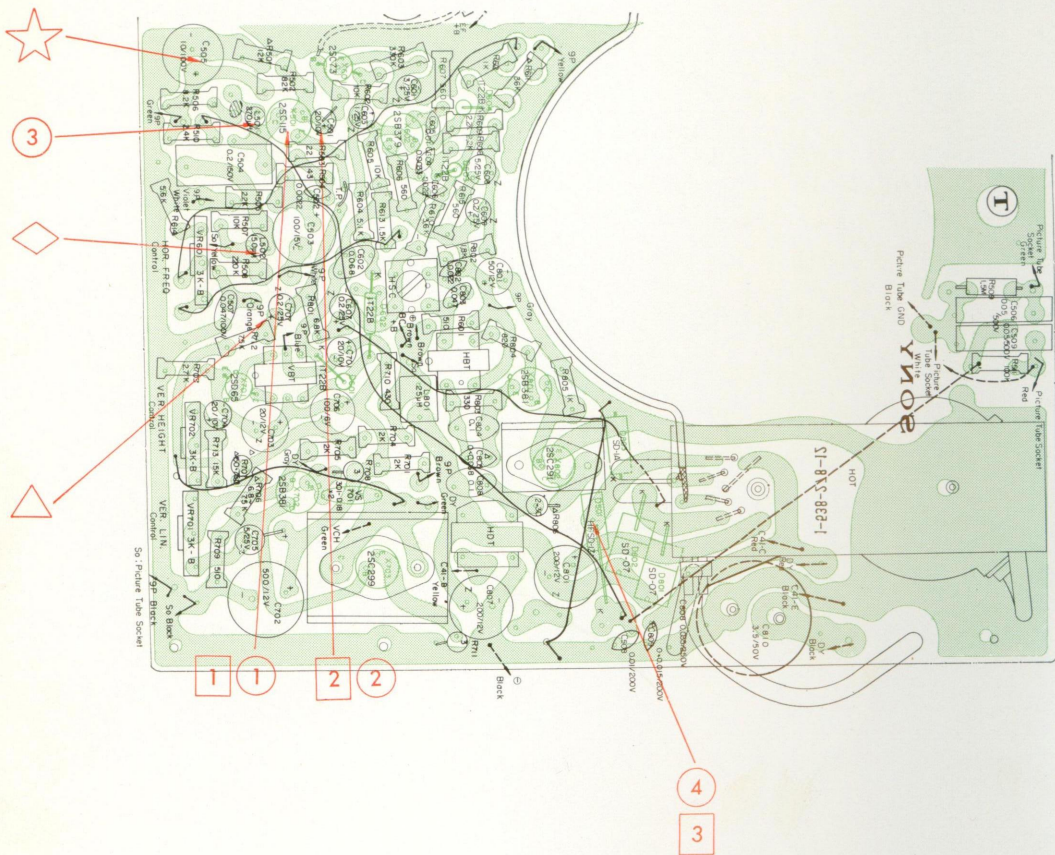
- Insufficient Vertical Height
- ⊠ Defective C702 (decreased capacity)
- ⊞ Defective X703 (leakage between E and C)

- △ Poor Vertical Linearity
- ⚠ Defective X703
- ⚠ Defective C705 (decreased capacity)

- Vertical Movement (Picture moves slowly up and down)
- ① Defective X702

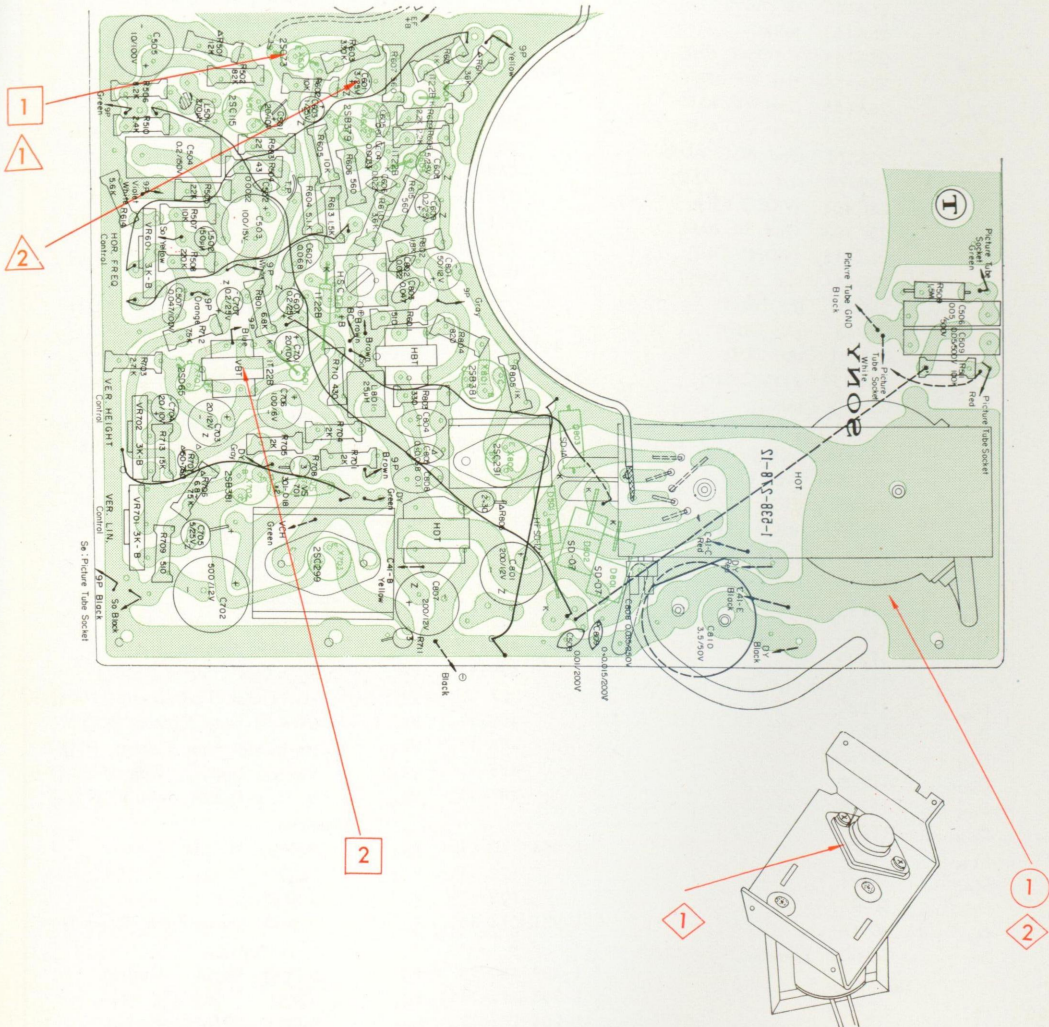
- ◇ No Vertical Output
- ◇ Open or shorted
- ◇ Open VBT
- ◇ Open or shorted X702
- ◇ Open or shorted X703





- |  |                                      |  |
|--|--------------------------------------|--|
| <input type="checkbox"/> Saturated White Peak  | <input type="radio"/> No Picture     | <input type="triangle-up"/> Dark picture on upper side |
| <input type="checkbox"/> Defective X501        | <input type="radio"/> Defective X501 | <input type="triangle-up"/> Shorted C707               |
| <input checked="" type="checkbox"/> Leaky C501 | <input type="radio"/> Defective C501 |  |
| <input checked="" type="checkbox"/> Leaky D501 | <input type="radio"/> Open L501      | <input type="diamond"/> Smears in Picture              |
|  | <input type="radio"/> Shorted D501   | <input type="diamond"/> Open L502                      |
- 
- |   |
|---|
| <input checked="" type="star"/> Dark picture on left side           |
| <input checked="" type="star"/> Defective C505 (decreased capacity) |





- ☐ Loss of Vertical and Horizontal SYNC
- ☒ Defective X601 (leakage between E and C)
- ☒ Open VBT (3rd winding)

- ❖ **Excessive Current Drain**
- ❖ Defective X803 (When Emitter and Collector is shorted, Fuse will be blown)
- ❖ Defective FBT

- High Voltage Discharge
- ① Defective FBT (secondary winding)

- △ Weak Horizontal SYNC
- △ Defective X601 (leakage between E and C waveform at X601 collector will be 10  $\mu$ sec width.)
- △ Defective C601



# Electrical Parts List (A)

Part No.	Symbol	Description	Part No.	Symbol	Description
<b>Transistor</b>					
X <sub>101</sub>		2SA448 (L. OSC, UHF)	1-902-488-11	L <sub>208</sub>	Jumper Wire A
X <sub>201</sub>		2SA162 (RF AMP)	-489-11	L <sub>209</sub>	" B
X <sub>202</sub>		2SA453 (MIX)	1-407-068-11	L <sub>213</sub>	Micro Inductor 3.3 $\mu$ H
X <sub>203</sub>		2SA163 (L. OSC, UHF)	1-902-601-11	L <sub>215</sub>	Jumper Wire C
X <sub>301</sub>		2SA456 (1st VIF AMP)	-602-11	L <sub>216</sub>	" D
X <sub>302</sub>		2SA455 (2nd VIF AMP)	1-407-037-11	L <sub>301</sub>	MICRO INDUCTOR 10 $\mu$ H
X <sub>303</sub>		2SA454 (3rd VIF AMP)	-068-11	L <sub>302</sub>	" 3.3 $\mu$ H
X <sub>304</sub>		2SB378 (2nd AGC AMP)	-052-11	L <sub>303</sub>	" 470 $\mu$ H
X <sub>305</sub>		2SB378 (1st AGC AMP)	-054-11	L <sub>401</sub>	" 3.3 $\mu$ H
X <sub>401</sub>		2SC403 (VIDEO & 1st SIF AMP)	-068-11	L <sub>402</sub>	" 1 $\mu$ H
X <sub>402</sub>		2SC403 (2nd SIF AMP)	-071-11	L <sub>403</sub>	" 5.6 $\mu$ H
X <sub>501</sub>		2SC115 (VIDEO OUT)	-035-12	L <sub>501</sub>	" 270 $\mu$ H
X <sub>551</sub>		2SD65 (1st AF AMP)	-049-11	L <sub>502</sub>	" 150 $\mu$ H
X <sub>552</sub>		2SB381 (AF DRIVE)	-053-11	L <sub>501</sub>	" 270 $\mu$ H
X <sub>553</sub>		2SD65 (AF OUT)	-030-11	L <sub>502</sub>	" 150 $\mu$ H
X <sub>554</sub>		2SB381 (AF OUT)	-063-11	L <sub>801</sub>	" 20 $\mu$ H
X <sub>601</sub>		2SC73 (SYNC SEP)	1-421-013-11	VBT	Vertical Blocking Transformer
X <sub>602</sub>		2SB379 (AFC)	1-435-008-11		
X <sub>701</sub>		2SD65 (VER OSC)	-008-12		
X <sub>702</sub>		2SB381 (VER DRIVE)	1-435-009-11	HBT	Horizontal Blocking Transformer
X <sub>703</sub>		2SC299 (VER OUT)	1-421-127-12	VCH	Vertical Output Choke Coil
X <sub>801</sub>		2SB381 (HOR OSC)	1-413-005-11	HSC	Horizontal Stabilizing Coil
X <sub>802</sub>		2SC291 (HOR DRIVE)	1-437-002-00	HDT	Horizontal Input Transformer
X <sub>803</sub>		2SC41 (HOR OUT)	1-421-126-11	BCH	Filter Choke Coil for Power Supply
<b>Diode</b>			1-441-193-11	PT	Power Transformer
D <sub>101</sub>		1T13			<b>Potentiometer</b>
D <sub>301</sub>		1T26	1-221-402-12	VR <sub>1</sub>	Volume Control 5K $\Omega$ -T
D <sub>302</sub>		1T22	-404-12	VR <sub>2</sub>	Contrast Control 3K $\Omega$ -C
		1T26 (Built-in DET. BLOCK)	-429-11	VR <sub>3</sub>	Brightness Control 250K $\Omega$ -B
D <sub>401</sub>		1T23	-297-12	VR <sub>4</sub>	Horizontal Hold Control 10K $\Omega$ -B
D <sub>402</sub>		1T23	-403-11	VR <sub>5</sub>	Vertical Hold Control 2K $\Omega$ -B
D <sub>501</sub>		HF SDIZ	-485-11	VR <sub>601</sub>	Horizontal Freq. Control 3K $\Omega$ -B
D <sub>601</sub>		1T22B	-485-11	VR <sub>701</sub>	Vertical Linearity Control 3K $\Omega$ -B
D <sub>602</sub>		1T22B	-485-11	VR <sub>702</sub>	Vertical Height Control 3K $\Omega$ -B
D <sub>603</sub>		1T22B			<b>Resistor</b>
D <sub>604</sub>		1T22B	1-204-110-11	R <sub>101</sub>	330 $\Omega$ RD $\frac{1}{32}$ SL Carbon
D <sub>801</sub>		SD-07	-122-11	R <sub>102</sub>	1K $\Omega$ RD $\frac{1}{32}$ SL "
D <sub>802</sub>		SD-07	-123-11	R <sub>103</sub>	3.3K $\Omega$ " "
D <sub>803</sub>		SD-1A	1-231-014-11	R <sub>104</sub>	7.5K $\Omega$ Encapsulated Component (with C <sub>104</sub> )
Se		Selenium Rectifier			
<b>Thermistor</b>			1-204-460-11	R <sub>201</sub>	2.7K $\Omega$ RD $\frac{1}{16}$ L Carbon
Th		CS-120	1-203-192-11	R <sub>202</sub>	15K $\Omega$ " "
VS		Varistor	1-204-101-11	R <sub>203</sub>	240K $\Omega$ RD $\frac{1}{32}$ SL Carbon
<b>Coil &amp; Transformer</b>			-185-11	R <sub>204</sub>	1K $\Omega$ RD $\frac{1}{16}$ L "
1-403-459-11	VIFT <sub>2</sub>	Video IF Transformer	-104-11	R <sub>205</sub>	4.7K $\Omega$ RD $\frac{1}{32}$ SL "
-460-11	VIFT <sub>3</sub>	"	1-203-193-11	R <sub>206</sub>	18K $\Omega$ RD $\frac{1}{16}$ L "
-461-11	VIFT <sub>4</sub>	"	1-204-102-11	R <sub>207</sub>	1K $\Omega$ RD $\frac{1}{32}$ SL "
-462-11	DET <sub>1</sub>	Video Detector Block	1-203-421-11	R <sub>208</sub>	1K $\Omega$ RD $\frac{1}{16}$ RL "
-316-11	SIFT <sub>1</sub>	1st Sound IF Transformer	-421-11	R <sub>209</sub>	1K $\Omega$ " "
-313-11	SIFT <sub>2</sub>	2nd Sound IF Transformer	1-204-103-11	R <sub>210</sub>	2.7K $\Omega$ RD $\frac{1}{32}$ SL "
1-409-067-11	TRAP <sub>301</sub>	Video IF Trap Coil	1-203-190-11	R <sub>211</sub>	10K $\Omega$ RD $\frac{1}{16}$ L "
-036-11	TRAP <sub>401</sub>	Sound IF Trap Coil	1-204-460-11	R <sub>212</sub>	2.7K $\Omega$ " "
1-425-076-11	L <sub>104</sub>	Coil L4	-041-11	R <sub>213</sub>	240 $\Omega$ " "
1-407-068-11	L <sub>105</sub>	Choke Coil	-853-11	R <sub>214</sub>	1.2K $\Omega$ " "
-085-11	L <sub>106</sub>	Equalization Coil	-103-11	R <sub>215</sub>	2.7K $\Omega$ RD $\frac{1}{32}$ SL "
1-425-192-11	L <sub>201</sub>	Input Trap Coil		R <sub>216</sub>	—deleted—
1-409-061-11	L <sub>202</sub>	RF Coil D	1-204-183-11	R <sub>217</sub>	1.5K $\Omega$ RD $\frac{1}{16}$ L Carbon
-049-11	L <sub>203</sub>	RF Coil A	-103-11	R <sub>218</sub>	2.7K $\Omega$ RD $\frac{1}{32}$ SL "
-050-11	L <sub>204</sub>	RF Coil B	-107-11	R <sub>219</sub>	3.3K $\Omega$ " "
1-403-451-11	L <sub>206</sub>	IF Transformer	-185-11	R <sub>220</sub>	4.7K $\Omega$ RD $\frac{1}{16}$ L "
1-425-156-11	L <sub>207</sub>	Fine Tuning Equalization Coil	-345-11	R <sub>221</sub>	5.1K $\Omega$ " "
			1-203-011-11	R <sub>301</sub>	100 $\Omega$ RD $\frac{1}{4}$ L "
			1-204-220-11	R <sub>302</sub>	910 $\Omega$ " "



Part No.	Symbol	Description	Part No.	Symbol	Description
1-203-031-11	R <sub>303</sub>	1K $\Omega$ RD $\frac{1}{4}$ L Carbon	1-203-069-11	R <sub>602</sub>	10K $\Omega$ RD $\frac{1}{4}$ L Carbon
-031-11	R <sub>304</sub>	1K $\Omega$ " "	-114-11	R <sub>603</sub>	330K $\Omega$ " "
-095-11	R <sub>305</sub>	47K $\Omega$ " "	-155-11	R <sub>604</sub>	5.1K $\Omega$ " "
-189-11	R <sub>306</sub>	8.2K $\Omega$ RD $\frac{1}{16}$ L " "	-069-11	R <sub>605</sub>	10K $\Omega$ " "
-011-11	R <sub>307</sub>	100 $\Omega$ RD $\frac{1}{4}$ L " "	-027-11	R <sub>606</sub>	560 $\Omega$ " "
-019-11	R <sub>308</sub>	270 $\Omega$ " " "	-027-11	R <sub>607</sub>	560 $\Omega$ " " "
-019-11	R <sub>309</sub>	270 $\Omega$ " " "	-049-11	R <sub>608</sub>	2.2K $\Omega$ " " "
-334-11	R <sub>310</sub>	180 $\Omega$ " " "	-049-11	R <sub>609</sub>	2.2K $\Omega$ " " "
-061-11	R <sub>311</sub>	3.9K $\Omega$ " " "	1-204-094-11	R <sub>610</sub>	3.6K $\Omega$ " " "
-083-11	R <sub>312</sub>	22K $\Omega$ " " "	1-203-091-11	R <sub>611</sub>	36K $\Omega$ " " "
-699-01	R <sub>313</sub>	20K $\Omega$ " " "	-031-11	R <sub>612</sub>	1K $\Omega$ " " "
-373-11	R <sub>314</sub>	3.3K $\Omega$ RD $\frac{1}{8}$ RL " "	-039-11	R <sub>613</sub>	1.5K $\Omega$ " " "
-130-11	R <sub>315</sub>	18K $\Omega$ RD $\frac{1}{4}$ L " "	-065-11	R <sub>614</sub>	5.6K $\Omega$ " " "
-367-11	R <sub>316</sub>	1K $\Omega$ RD $\frac{1}{8}$ RL " "	-027-11	R <sub>615</sub>	560 $\Omega$ " " "
-186-11	R <sub>317</sub>	5.6K $\Omega$ RD $\frac{1}{16}$ L " "	-044-11	R <sub>701</sub>	2K $\Omega$ " " "
-378-11	R <sub>318</sub>	5.6K $\Omega$ RD $\frac{1}{8}$ L " "	-124-11	R <sub>702</sub>	6.2K $\Omega$ " " "
-778-11	R <sub>319</sub>	2.4K $\Omega$ " " "	-050-11	R <sub>703</sub>	2.7K $\Omega$ " " "
-026-11	R <sub>320</sub>	470 $\Omega$ RD $\frac{1}{4}$ L " "	-044-11	R <sub>704</sub>	2K $\Omega$ " " "
-011-11	R <sub>321</sub>	100 $\Omega$ " " "	-044-11	R <sub>705</sub>	2K $\Omega$ " " "
-051-11	R <sub>322</sub>	3K $\Omega$ " " "	-067-11	*R <sub>706</sub>	6.8K $\Omega$ " " "
-744-11	R <sub>323</sub>	2.4K $\Omega$ " " "	-131-11	*R <sub>706</sub>	7.5K $\Omega$ " " "
-158-11	R <sub>324</sub>	620 $\Omega$ " " "	-415-11	*R <sub>707</sub>	150 $\Omega$ RD $\frac{1}{8}$ RL " "
-031-11	R <sub>325</sub>	1K $\Omega$ " " "	-360-11	*R <sub>707</sub>	330 $\Omega$ " " "
-384-11	R <sub>401</sub>	12K $\Omega$ RD $\frac{1}{8}$ RL " "	-361-11	*R <sub>707</sub>	470 $\Omega$ " " "
-408-11	R <sub>402</sub>	8.2K $\Omega$ " " "	-857-11	*R <sub>707</sub>	620 $\Omega$ " " "
-603-11	R <sub>403</sub>	300 $\Omega$ RD $\frac{1}{16}$ RL " "	-335-11	*R <sub>707</sub>	750 $\Omega$ " " "
-020-11	R <sub>404</sub>	300 $\Omega$ RD $\frac{1}{4}$ L " "	1-207-018-00	R <sub>708</sub>	3 $\Omega$ RW $\frac{1}{4}$ RL Wire Wound
-385-11	R <sub>405</sub>	15K $\Omega$ RD $\frac{1}{8}$ RL " "	1-203-229-11	R <sub>709</sub>	510 $\Omega$ RD $\frac{1}{4}$ L Carbon
-373-11	R <sub>406</sub>	3.3K $\Omega$ " " "	1-204-098-11	R <sub>710</sub>	430 $\Omega$ " " "
1-204-998-11	R <sub>407</sub>	51K $\Omega$ RD $\frac{1}{16}$ L " "	1-207-018-00	R <sub>711</sub>	3 $\Omega$ RW $\frac{1}{4}$ RL Wire Wound
-080-11	R <sub>408</sub>	820 $\Omega$ " " "	1-203-131-11	R <sub>712</sub>	7.5K $\Omega$ RD $\frac{1}{4}$ RL Carbon
1-203-367-11	R <sub>409</sub>	1K $\Omega$ RD $\frac{1}{8}$ RL " "	-075-11	R <sub>713</sub>	15K $\Omega$ " " "
-405-11	R <sub>410</sub>	1.5K $\Omega$ " " "	-067-11	R <sub>801</sub>	6.8K $\Omega$ " " "
-368-11	R <sub>411</sub>	1.2K $\Omega$ " " "	-151-11	R <sub>802</sub>	1.8K $\Omega$ " " "
-373-11	R <sub>412</sub>	3.3K $\Omega$ " " "	-024-11	R <sub>803</sub>	330 $\Omega$ " " "
-373-11	R <sub>413</sub>	3.3K $\Omega$ " " "	-852-11	R <sub>804</sub>	820 $\Omega$ " " "
1-204-219-11	R <sub>414</sub>	51 $\Omega$ RD $\frac{1}{4}$ L " "	-031-11	R <sub>805</sub>	1K $\Omega$ " " "
1-203-128-11	R <sub>501</sub>	12K $\Omega$ " " "	1-207-030-00	*R <sub>806</sub>	1 $\Omega$ RW $\frac{1}{4}$ RL Wire Wound
-125-11	R <sub>502</sub>	82K $\Omega$ " " "	-015-00	*R <sub>806</sub>	2 $\Omega$ " " "
-005-11	R <sub>503</sub>	22 $\Omega$ " " "	-019-00	*R <sub>806</sub>	3 $\Omega$ " " "
-008-11	R <sub>504</sub>	43 $\Omega$ " " "	-020-00	*R <sub>806</sub>	3.9 $\Omega$ " " "
-049-11	R <sub>505</sub>	2.2K $\Omega$ " " "	-021-00	*R <sub>806</sub>	4.7 $\Omega$ " " "
-068-11	R <sub>506</sub>	8.2K $\Omega$ " " "	-022-00	*R <sub>806</sub>	5.6 $\Omega$ " " "
-069-11	R <sub>507</sub>	10K $\Omega$ " " "	-023-00	*R <sub>806</sub>	6.8 $\Omega$ " " "
-109-11	R <sub>508</sub>	220 $\Omega$ " " "	-024-00	*R <sub>806</sub>	8.2 $\Omega$ " " "
1-201-455-11	R <sub>509</sub>	1.5 Meg $\Omega$ RC $\frac{1}{2}$ L Composition	-071-11	*R <sub>806</sub>	10 $\Omega$ " " "
1-203-744-11	R <sub>510</sub>	2.4K $\Omega$ RD $\frac{1}{4}$ L Carbon	-042-00	*R <sub>806</sub>	13 $\Omega$ " " "
-100-11	R <sub>511</sub>	100K $\Omega$ " " "	-044-00	*R <sub>806</sub>	15 $\Omega$ " " "
-128-11	R <sub>551</sub>	12K $\Omega$ " " "	-062-00	*R <sub>806</sub>	18 $\Omega$ " " "
-069-11	R <sub>552</sub>	10K $\Omega$ " " "	-072-11	*R <sub>806</sub>	22 $\Omega$ " " "
-151-11	R <sub>553</sub>	1.8K $\Omega$ " " "	-054-11	R <sub>901</sub>	3.9 $\Omega$ RW3L " "
-584-11	R <sub>554</sub>	3 $\Omega$ " " "	1-201-676-11	R <sub>902</sub>	750K $\Omega$ RC $\frac{1}{2}$ L Composition
-067-11	R <sub>555</sub>	6.8K $\Omega$ " " "			Capacitor
-037-11	R <sub>556</sub>	1.2K $\Omega$ " " "	1-231-012-21	C <sub>101</sub>	12PF, 1000PF } Encapsulated
-148-11	R <sub>557</sub>	47 $\Omega$ " " "	-012-21	C <sub>102</sub>	12PF, 1000PF } Component
-334-11	R <sub>558</sub>	180 $\Omega$ " " "	1-101-795-11	C <sub>103</sub>	15PF Ceramic
-019-11	R <sub>559</sub>	270 $\Omega$ " " "	1-231-014-11	C <sub>104</sub>	1000PF, 7.5K $\Omega$ Encapsulated Component (with R <sub>104</sub> )
-037-11	R <sub>560</sub>	1.2K $\Omega$ " " "	1-101-531-11	C <sub>105</sub>	1000PF Ceramic
-584-11	R <sub>561</sub>	3 $\Omega$ " " "	-585-11	C <sub>201</sub>	200PF " "
-333-11	R <sub>562</sub>	5 $\Omega$ " " "	1-141-060-11	C <sub>202</sub>	Cylindrical Trimmer Capacitor
1-204-218-11	R <sub>563</sub>	18 $\Omega$ " " "	1-101-559-11	C <sub>203</sub>	15PF Ceramic
1-203-334-11	R <sub>564</sub>	180 $\Omega$ " " "	-560-11	C <sub>204</sub>	20PF " "
-229-11	R <sub>601</sub>	510 $\Omega$ " " "			

\* To be adjustment



Part No.	Symbol	Description	Part No.	Symbol	Description
1-101-565-11	C <sub>205</sub>	25PF Ceramic	1-101-832-11	C <sub>405</sub>	9PF Ceramic
-834-11	C <sub>206</sub>	1.8PF //	-061-11	C <sub>405</sub>	10PF //
-557-11	C <sub>207</sub>	10PF //	-115-17	C <sub>406</sub>	30PF //
1-141-060-11	C <sub>208</sub>	Cylindrical Trimmer Capacitor	-007-11	C <sub>407</sub>	0.05 $\mu$ F //
1-101-072-14	C <sub>209</sub>	0.01 $\mu$ F Ceramic	-004-11	C <sub>408</sub>	0.01 $\mu$ F //
	C <sub>210</sub>	—deleted—	-571-11	C <sub>409</sub>	140PF //
1-141-060-11	C <sub>211</sub>	Cylindrical Trimmer Capacitor	1-121-104-00	C <sub>410</sub>	10 $\mu$ F Electrolytic
1-101-580-11	C <sub>212</sub>	6PF Ceramic	1-101-423-11	C <sub>411</sub>	500PF Ceramic
-560-11	C <sub>213</sub>	20PF //	-423-11	C <sub>412</sub>	500PF //
1-141-038-11	C <sub>214</sub>	Cylindrical Trimmer Capacitor	-007-11	C <sub>413</sub>	0.05 $\mu$ F //
1-101-559-11	C <sub>215</sub>	15PF Ceramic	-121-00	C <sub>414</sub>	200 $\mu$ F //
-577-11	C <sub>216</sub>	90PF //	-001-11	C <sub>415</sub>	1000PF //
-125-11	C <sub>217</sub>	0.001 $\mu$ F //	1-121-073-00	C <sub>501</sub>	20 $\mu$ F Electrolytic
-565-11	C <sub>218</sub>	25PF //	1-105-665-12	C <sub>502</sub>	0.0022 $\mu$ F Mylar
-555-11	C <sub>219</sub>	5PF //	1-121-201-05	C <sub>503</sub>	100 $\mu$ F Electrolytic
	C <sub>220</sub>	Fine Tuning Capacitor	1-113-124-01	C <sub>504</sub>	0.2 $\mu$ F Metalized Paper
1-101-582-11	C <sub>221</sub>	3PF Ceramic	1-121-126-00	C <sub>505</sub>	10 $\mu$ F Electrolytic
-580-11	C <sub>222</sub>	6PF //	1-113-122-11	C <sub>506</sub>	0.05 $\mu$ F Metalized Paper
-557-11	C <sub>223</sub>	10PF //	1-105-721-12	C <sub>507</sub>	0.047 $\mu$ F Mylar
-563-11	C <sub>224</sub>	50PF //	-735-12	C <sub>508</sub>	0.01 $\mu$ F //
-125-11	C <sub>225</sub>	0.001 $\mu$ F //	1-113-122-11	C <sub>509</sub>	0.05 $\mu$ F Metalized Paper
-072-14	C <sub>226</sub>	0.01 $\mu$ F //	1-121-104-00	C <sub>551</sub>	10 $\mu$ F Electrolytic
-599-11	C <sub>227</sub>	0.0018 $\mu$ F //	-121-00	C <sub>552</sub>	200 $\mu$ F //
-599-11	C <sub>228</sub>	0.0018 $\mu$ F //	-102-00	C <sub>553</sub>	30 $\mu$ F //
	C <sub>229</sub>	—deleted—	-084-00	C <sub>554</sub>	500 $\mu$ F //
	C <sub>230</sub>	—deleted—	-122-00	C <sub>555</sub>	50 $\mu$ F //
1-101-561-11	C <sub>231</sub>	30PF Ceramic	-232-11	C <sub>601</sub>	3 $\mu$ F Electrolytic
-559-11	C <sub>232</sub>	15PF //	1-105-683-12	C <sub>602</sub>	0.068 $\mu$ F Mylar
-584-11	C <sub>233</sub>	2PF //	1-121-230-11	C <sub>603</sub>	1 $\mu$ F Electrolytic
1-129-048-11	C <sub>251</sub>	0.5 $\mu$ F Electrolytic	1-105-667-12	C <sub>604</sub>	0.0033 $\mu$ F Mylar
1-101-093-11	C <sub>301</sub>	6PF Ceramic	-673-12	C <sub>605</sub>	0.01 $\mu$ F //
-048-11	C <sub>302</sub>	4PF //	-677-12	C <sub>606</sub>	0.022 $\mu$ F //
-003-11	C <sub>303</sub>	0.005 $\mu$ F //	1-121-227-11	C <sub>607</sub>	0.2 $\mu$ F Electrolytic
-003-11	C <sub>304</sub>	0.005 $\mu$ F //	-233-11	C <sub>608</sub>	5 $\mu$ F //
-009-11	C <sub>305</sub>	1PF //	-227-11	C <sub>609</sub>	0.2 $\mu$ F //
-003-11	C <sub>306</sub>	0.005 $\mu$ F //	-249-11	C <sub>701</sub>	20 $\mu$ F //
-003-11	C <sub>307</sub>	0.005 $\mu$ F //	-084-00	C <sub>702</sub>	500 $\mu$ F //
-003-11	C <sub>308</sub>	0.005 $\mu$ F //	-085-11	C <sub>703</sub>	20 $\mu$ F //
1-121-178-00	C <sub>309</sub>	3 $\mu$ F Electrolytic	-249-11	C <sub>704</sub>	20 $\mu$ F //
1-101-010-11	C <sub>310</sub>	2PF Ceramic	-233-11	C <sub>705</sub>	5 $\mu$ F //
-003-11	C <sub>311</sub>	0.005 $\mu$ F //	-115-00	C <sub>706</sub>	100 $\mu$ F //
-003-11	C <sub>312</sub>	0.005 $\mu$ F //	-227-11	C <sub>707</sub>	0.2 $\mu$ F //
-003-11	C <sub>313</sub>	0.005 $\mu$ F //	-122-00	C <sub>201</sub>	50 $\mu$ F //
-003-11	C <sub>314</sub>	0.005 $\mu$ F //	1-105-677-12	C <sub>802</sub>	0.022 $\mu$ F Mylar
-010-11	C <sub>315</sub>	2PF $\approx$	-681-12	C <sub>803</sub>	0.047 $\mu$ F //
1-121-102-00	C <sub>316</sub>	30 $\mu$ F Electrolytic	-685-12	C <sub>804</sub>	0.1 $\mu$ F //
-102-00	C <sub>317</sub>	30 $\mu$ F //	-673-12	*C <sub>805</sub>	0.01 $\mu$ F //
1-101-003-11	C <sub>318</sub>	0.005 $\mu$ F Ceramic	-677-12	*C <sub>805</sub>	0.022 $\mu$ F //
-003-11	C <sub>319</sub>	0.005 $\mu$ F //	-679-12	*C <sub>805</sub>	0.033 $\mu$ F //
-167-11	C <sub>320</sub>	1.5PF //	-681-12	*C <sub>805</sub>	0.044 $\mu$ F //
-003-11	C <sub>321</sub>	0.005 $\mu$ F //	-683-12	*C <sub>805</sub>	0.068 $\mu$ F //
-003-11	C <sub>322</sub>	0.005 $\mu$ F //	-685-12	C <sub>806</sub>	0.1 $\mu$ F //
-061-11	C <sub>323</sub>	10PF //	1-121-220-11	C <sub>807</sub>	200 $\mu$ F Electrolytic
1-121-051-00	C <sub>324</sub>	1 $\mu$ F Electrolytic	1-105-749-12	*C <sub>809</sub>	0.0047 $\mu$ F Mylar
-250-11	C <sub>325</sub>	2 $\mu$ F //	-753-12	*C <sub>809</sub>	0.01 $\mu$ F //
-104-00	C <sub>326</sub>	10 $\mu$ F //	-755-12	*C <sub>809</sub>	0.015 $\mu$ F //
1-101-012-11	C <sub>401</sub>	5PF Ceramic	1-113-052-11	*C <sub>810</sub>	3.5 $\mu$ F Metalized Paper
-093-11	C <sub>401</sub>	6PF //	1-129-060-11	*C <sub>810</sub>	3.8 $\mu$ F Polyethylene Film
-113-18	C <sub>402</sub>	80PF //	1-121-220-11	C <sub>811</sub>	200 $\mu$ F Electrolytic
	C <sub>403</sub>	—deleted—	-024-11	C <sub>901</sub>	1000 $\mu$ F //
1-103-048-12	*C <sub>404</sub>	330PF Polyethylene	1-119-101-05	C <sub>902</sub>	100 $\mu$ F //
1-101-017-11	*C <sub>404</sub>	200PF Ceramic	1-121-023-11	C <sub>903</sub>	4000 $\mu$ F //

\* To be adjustment



## Electrical Parts List (B)

Part No.	Description	Q'ty	Part No.	Description	Q'ty
1-507-159-12	Antenna Jack	1	<div>Wire and Miscellaneous (Minimum Q'ty for Order: Meter)</div> <div>Main Block</div> <div>P. V. C. Wires</div> <div>17/0.16 AWG-22 Black</div> <div>    "      "      Brown</div> <div>    "      "      Blue</div> <div>    "      "      White</div> <div>P. V. C. Shielded Wire AWG-24</div> <div>P. V. C. Tube 3φ</div> <div>    "      4φ</div> <div>Tinned Copper Wire 0.6φ</div> <div>Spaghetti Tube 1φ Yellow</div> <div>Circuit Board Block</div> <div>P. V. C. Wire</div> <div>17/0.16 AWG-22 Gray</div> <div>41/0.16 "      Black</div> <div>    "      "      Red</div> <div>    "      "      Yellow</div> <div>P. V. C. Shielded Wire AWG-24</div> <div>Tinned Copper Wire 3φ</div> <div>Spaghetti Tube 1φ Yellow</div>		
-011-01	Earphone Jack	1			
-901-02	Jack Nut	2			
1-502-126-11	Speaker	1			
-126-12					
1-526-061-11	Socket for Picture Tube	1			
1-532-039-11	Fuse	1			
1-501-061-11	Antenna Attachment Assembly	1			
1-508-042-11	2 Pole Plug	1			
1-507-202-01	2 Pole Jack	1			
1-508-043-11	DC 2 Pole Plug	1			
1-534-105-13	Selenium Rectifier	1			
1-513-216-11	Charging Switch	1			
1-508-044-11	9P Connector	1			
1-507-134-11	9P Connector Terminal F	1			
-109-00	IF Connecting Terminal	2			
1-534-073-21	AC power Cord	1			
1-504-010-02	Earphone	1			
	<b>Tube</b>				
73120999	Picture Tube 230—DB4	1			
1-525-073-03	High Voltage Rectifier 1×2B	1			

Part No.	Description	Q'ty	Part No.	Description	Q'ty
Y-44050-25-1	Tuner Block	1	1-453-009-11	High Voltage Block	1
1-451-015-11	Deflection Yoke	1	Y-44050-51-1	Signal and Deflection Block	1

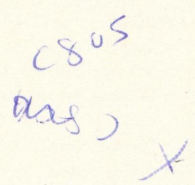
## Mechanical Parts List

Part No.	Description	Q'ty	Part No.	Description	Q'ty
<b>A. General</b>  <b>Cabinet and Appearance Items</b>			X-40032-06-3	Carrying Handle Assembly, including (Black)	1
X-40055-01-1	Front Cabinet Assembly, including (Black)	1	4-003-223-02	Carrying Handle	(1)
			-224-02	Handle Leather	(1)
4-005-501-01	Front Cabinet	(1)	-227-02	Friction Piece	(2)
-532-01	Front Grille	(1)	X-40032-37-1	Carrying Handle Assembly, including (White)	1
-503-01	Front Cabinet Escutcheon	(1)	4-003-223-02	Carrying Handle	(1)
4-003-205-02	" SONY " Badge	(1)	-224-12	Handle Leather	(1)
X-40055-01-2	Front Cabinet Assembly, including (White)	1	-227-03	Friction Piece	(2)
4-005-501-11	Front Cabinet	(1)	4-003-225-01	Handle Support (Left)	1
-502-11	Front Grille	(1)	-226-01	Handle Support (Right)	1
-503-01	Front Grille Escutcheon	(1)	X-40055-03-1	Channel Selector Knob Assembly (Black)	1
4-003-205-02	" SONY " Badge	(1)	X-40055-03-2	Channel Selector Knob Assembly (White)	1
X-40055-02-1	Rear Cover Assembly, including (Black)	1	X-40055-04-1	Fine Tuning Knob Assembly	1
4-005-504-02	Rear Cover	(1)	X-40045-06-1	Volume Control Knob Assembly	1
-505-01	Hole Covering Fiber	(3)	X-40055-05-1	UHF Dial Knob Assembly (Black)	1
-536-01	Shield Bracket	(1)	X-40055-06-1	UHF Dial Knob Assembly (White)	1
X-40055-02-2	Rear Cover Assembly, including (White)	1	4-005-513-01	Control Knob (Black)	4
4-005-504-11	Rear Cover	(1)	-513-11	Control Knob (White)	4
-505-01	Hole Covering Fiber	(3)	-521-02	Volume Control Knob Spacer (Black)	1
-536-01	Shield Bracket	(1)	-521-11	Volume Control Knob Spacer (White)	1
			4-003-214-01	Picture Tube Protector	1
			-215-02	Dust Proof Rubber Band	1
			4-004-509-02	Picture Tube Mounting Bracket	4
			4-005-515-01	Picture Tube Mounting Wire Ring	1



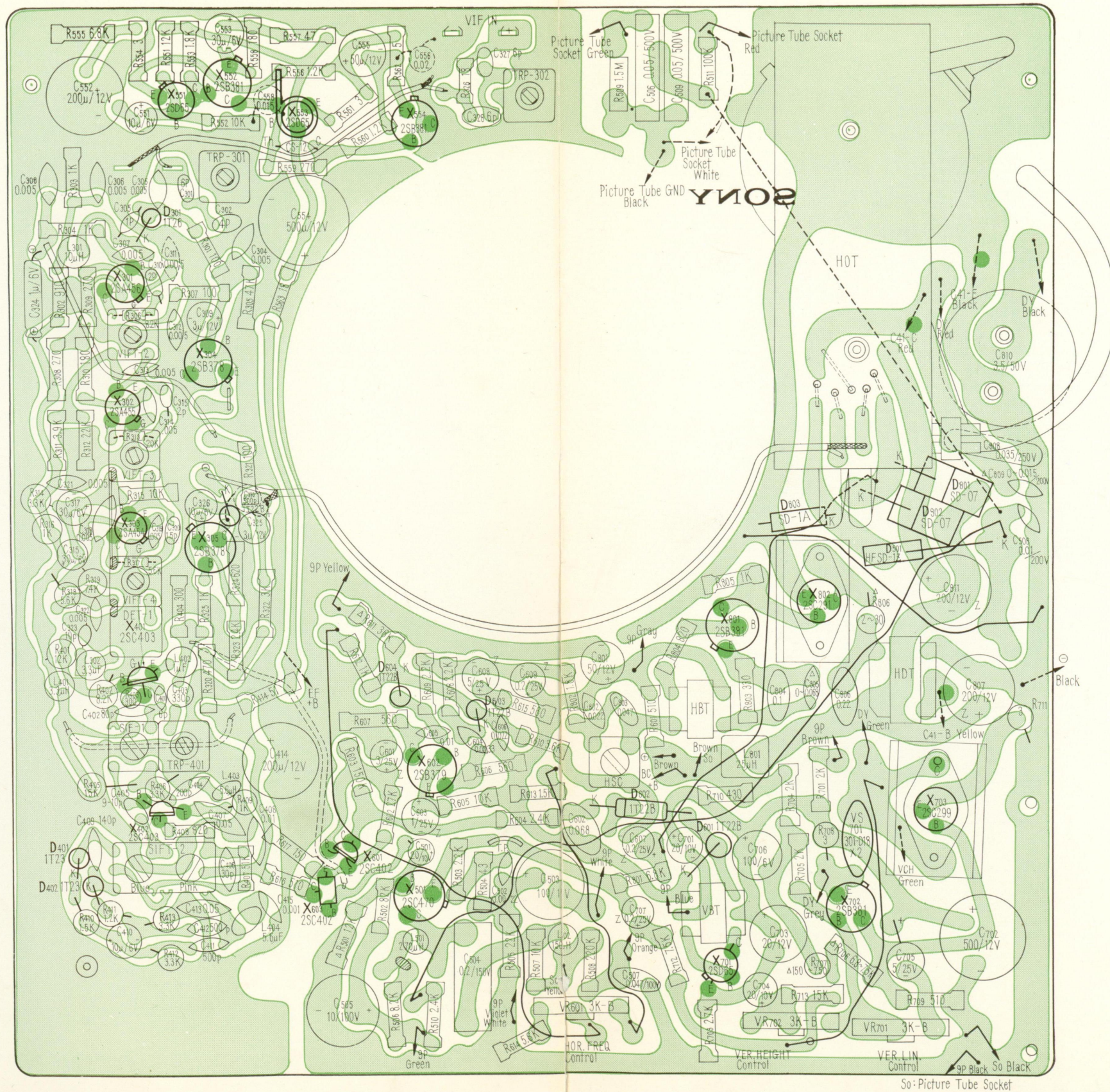
Part No.	Description	Q'ty	Part No.	Description	Q'ty
4-003-220-02	Picture Tube Grounding Spring	1	7-621-262-85	⊕P 3φ×40 (for Picture Tube)	1
4-004-143-01	Serial No. Label	1	-261-75	⊕P 3φ×12 (for Electrolytic Capacitor)	1
		mm			
7-651-302-11	Adhesive Tape	155	-268-75	⊕P 4φ×12 (for Power Transformer)	2
4-005-516-01	Circuit Board Support	2	-770-28	⊕B 3φ×6 (for Cabinet)	2
-517-01	Insulation Fiber	2	-261-65	⊕P 3φ×10 (for Cabinet)	2
-518-01	Insulation Fiber Fixing Spring	2	-722-31	⊕R Tapping 3φ×5 (for Circuit Board Holding)	2
4-003-213-01	Front Panel Base Mounting Plate Nut	2			
4-005-519-01	Connecting Piece A for Power Supply	2	-722-61	⊕R Tapping 3φ×10 (for Speaker)	3
-520-01	Speaker Nut	1		(for Tuner)	3
3-804-510-01	Speaker Mounting Piece	3		(for 2 Prong plug)	2
4-003-369-01	High Voltage Insulator	1		(for D.C. plug)	2
4-005-523-01	Insulation Tube Clamper	1		(for Choke Coil for Power Supply)	2
4-004-524-01	Connecting Piece B for Power Supply	2		(for Charging Switch)	2
-525-01	Capacitor Mounting Band	1	-722-51	⊕R Tapping 3φ×8 (for Circuit Board)	4
-537-01	High Voltage Caution Label	1		(for Ant. Assembly)	2
-538-01	Picture Tube Caution Label	1			
-556-02	Cushion for High Voltage Block	1	7-621-725-01	⊕R Tapping 4φ×30 (for Selenium Rectifier)	1
-557-01	Cushion for Printed Circuit Board	1			
	<b>Signal and Deflection Circuit Board Block</b>			<b>Washer</b>	
			7-623-208-22	Spring Washer 3φ (for Picture Tube)	4
4-005-527-02	Heat Sink for Horizontal Power Transistor	1	-108-12	Washer 3φ (for Circuit Board)	3
-528-01	Circuit Board Reinforcement	1	-113-12	Washer 6φ (for Ant. Assembly)	2
4-004-502-01	Heat Sink for Transistor 2SC-291	1		(for Carrying Handle)	2
4-002-107-01	Heat Sink for Horizontal Drive Transistor	1	-210-22	Spring Washer 4φ (for Electrolytic Capacitor)	2
4-003-656-01	Heat Sink for Transistor 2SD-65	1	-110-12	Washer 4φ (for Power Transformer)	2
4-005-547-01	Shield Cover	1	-510-02	Lug, Washer 4φ (for Insulated Tube)	1
-551-01	Circuit Board Reinforcement (Small)	1			
	<b>Accessories and Packing Materials</b>			<b>Nut</b>	
4-005-532-02	Front Cover (Black)	1	7-622-108-02	3φ (for Picture Tube)	1
-532-11	Front Cover (White)	1	4-004-335-01	6φ (for Carrying Handle)	2
-529-03	Packing Carton (Black)	1	7-622-110-02	4φ (for Power Transformer)	2
-529-12	Packing Carton (White)	1	-310-02	4φ (for Insulated Tube)	1
-539-02	Cushion Base	1			
-530-02	Styro-foam Cushion (Left)	1		<b>Circuit Board Items</b>	
-531-02	// // (Right)	1			
-550-01	Polyethylene Bag	1		<b>Screw</b>	
-549-02	Front Cover Cushion	1	7-621-261-72	⊕P 3φ×12 (for Tr. Mounting)	2
4-495-106-10	Instruction Manual	1	-261-62	// 3φ×10 ( // )	2
X-40055-08-1	Card Assembly	1	-255-52	// 2φ×8 ( // )	2
X-44900-02-1	Polishing Cloth in Polyethylene Bag	1	-722-51	⊕R Tapping 3φ×8 (for Hor. Power Tr. Heat Sink)	2
X-40055-09-1	Warranty Card Assembly	1		(for Vertical Choke Coil)	2
4-490-011-24	Serial No. Tag	1			
	IBM Card	1		<b>Washer</b>	
4-002-839-20	IBM Card Envelope	1	7-623-105-12	2φ (for High Voltage Block)	2
			-108-12	2φ (for Hor. Power Tr. Heat Sink)	2
			-511-02	Lug, Washer 4φ (for Tr. Mounting)	1
			7-622-108-02	<b>Nut</b>	
			-105-02	3φ (for Tr. Mounting)	4
				2φ (for Tr. Mounting)	2
				(for High Voltage Block)	2
	<b>B. Screw, Washer &amp; Nut</b>				
	<b>Cabinet Appearance &amp; Items</b>				
	<b>Screw</b>				
7-621-261-45	⊕P 3φ×6 (for Picture Tube)	4			
	(for Circuit Board)	1			







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# TV9-51UW

## ANNOUNCEMENT OF PRODUCTION CHANGE

Block	Changed Parts	From	To	Serial No.
Tuner Block	Tuner	BT-222WU	BT-222WU245	After around 65501
Antenna Section	L <sub>1</sub>	Nil	0.18 $\mu$ H	
Signal Section	Trap-302	Nil	47.25 Mc	After around 40001
	R <sub>326</sub>	Nil	18 $\Omega$	
	C <sub>327</sub>	Nil	6pF	
	C <sub>328</sub>	Nil	6pF	
	R <sub>315</sub>	18K $\Omega$	10K $\Omega$	
AGC Section	L <sub>303</sub>	470 $\mu$ H	Shorted	After around 66000
	C <sub>330</sub>	Nil	500pF	After around 65000
SYNC Section	X <sub>603</sub>	Nil	2SC402	After around 63001
	R <sub>617</sub>	Nil	150 $\Omega$	
	R <sub>616</sub>	Nil	510 $\Omega$	
	X <sub>601</sub>	2SC73	2SC402	After around 65501
	R <sub>602</sub>	10K $\Omega$	27K $\Omega$	
	R <sub>603</sub>	330K $\Omega$	150K $\Omega$	
	R <sub>604</sub>	5.1K $\Omega$	2.4K $\Omega$	
	C <sub>558</sub>	Nil	0.015 $\mu$ F	After around 69000
	C <sub>557</sub>	Nil	0.02 $\mu$ F	After around 65501
	C <sub>556</sub>	Nil	0.02 $\mu$ F	After around 66000
Video Section	X <sub>501</sub>	2SC115	2SC470	After around 64501
Deflection Section	C <sub>806</sub>	0.1 $\mu$ F	0.22 $\mu$ F	After around 69000

Parts in   were changed with change of corresponding transistors.

SONY CORPORATION

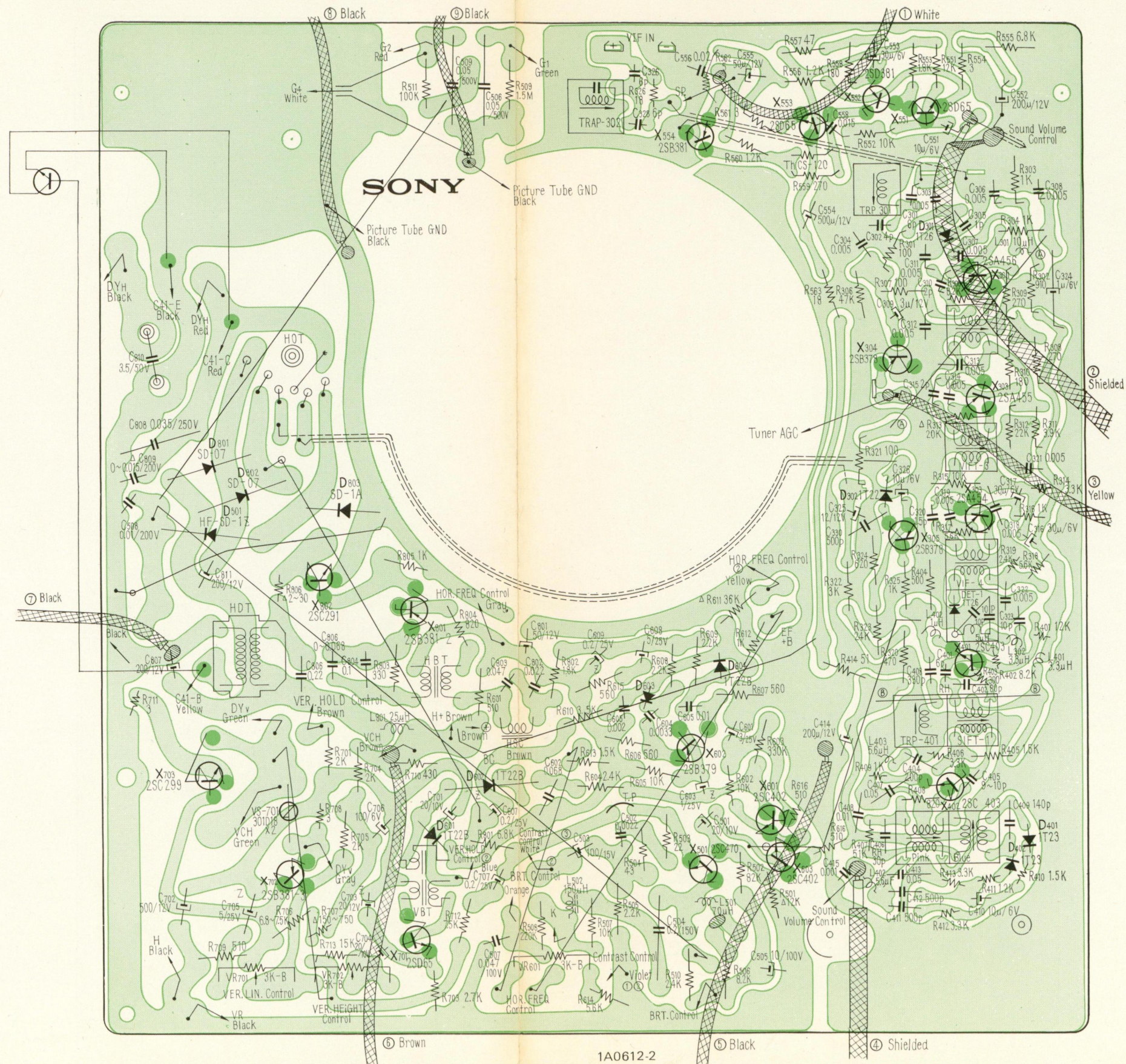


**MEMO**



## Mounting Diagram

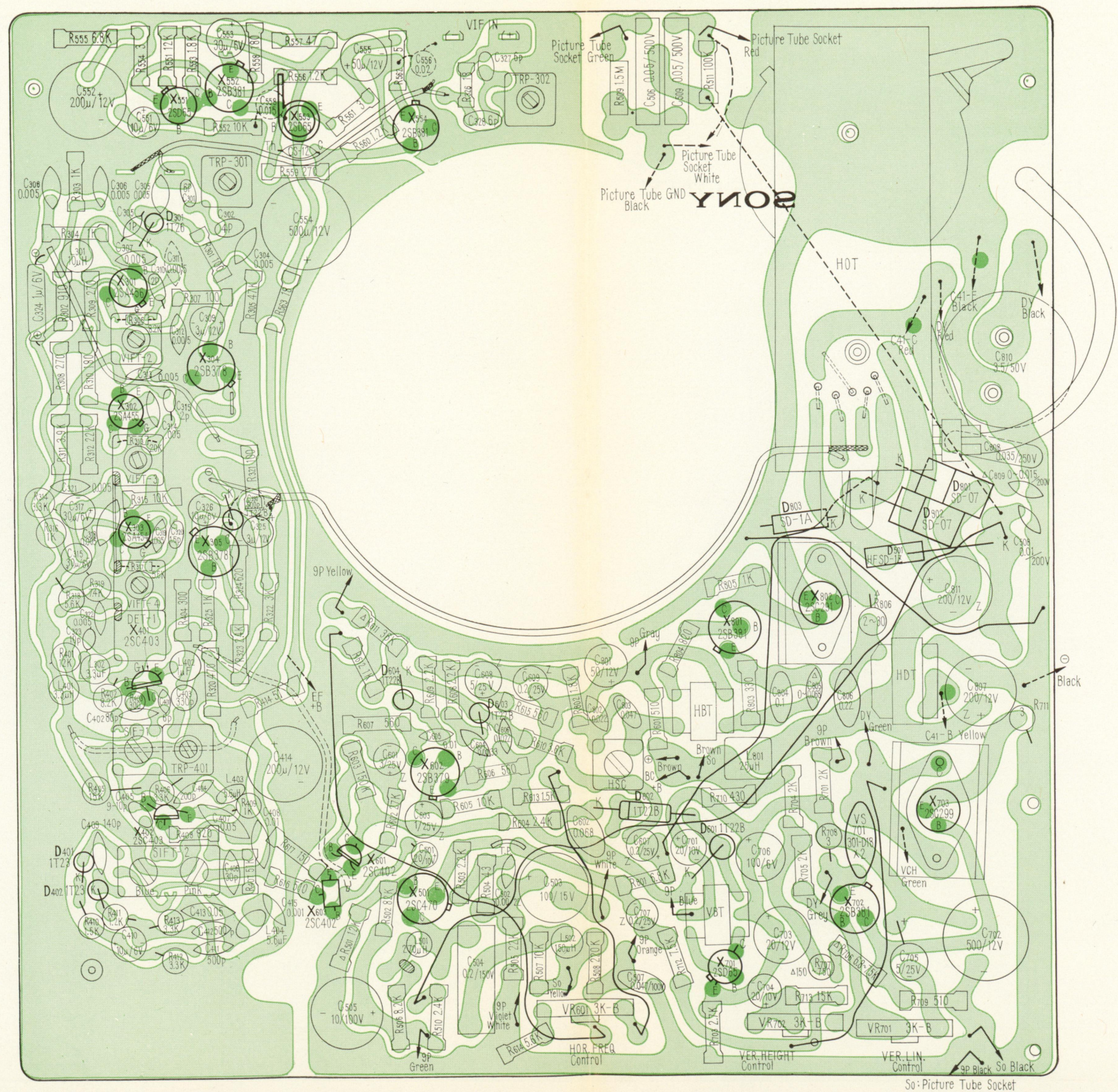
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## Mounting Diagram

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## Schematic Diagram

Circuit Board No. 1-538-278-15

